The National

Future Farmer

April - May, 1974

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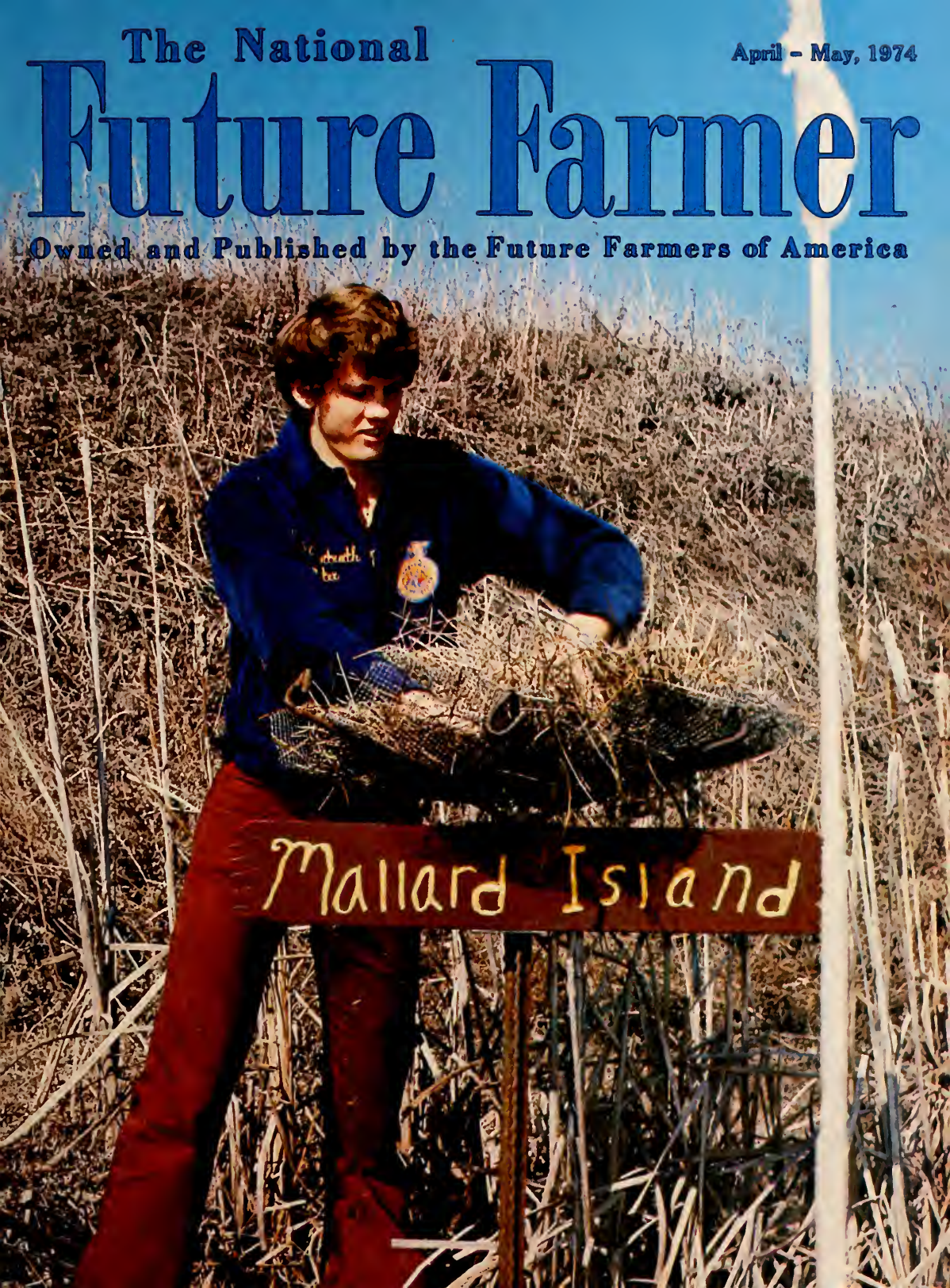

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We build better machines for the business of farming

The National
Future Farmer

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Our Cover

Putting marsh grass in the mallard nest is Vince Abentrath, the chapter reporter of the Central Valley, North Dakota, FFA. The nests—built by students in vocational agriculture shap and set out to provide a safe nesting place for ducks—are part of the wildlife habitat program being conducted by Vince, the BOAC chairman, and his fellow FFA members. Further details concerning the development of the chapter's game reserve can be found on page 14 in the article "A Wildlife Refuge on the Prairie."

Story and Photos by Ron Miller

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Will the FFA Remain Integral?

"...an integral part of the organized instructional program in agriculture, agribusiness, and renewable natural resources as qualify for assistance under federal vocational occupational education legislation."

This wording from Article II of the FFA Constitution describes the FFA organization. Legally, it is in keeping with Section 3 (8) of the organization's federal charter.

The question is sometimes asked, "Will the FFA remain an integral part of the instructional program in vocational agriculture?"

Or should the question be "Will the FFA remain?"

The answer is probably not if FFA is ever separated from instruction or the classroom of vocational education in agriculture.

The FFA is an outgrowth of the instructional program of vocational agriculture. It came about when instructors became aware of the need to provide practical training beyond the traditional classroom approach and students discovered it could be fun to learn by doing. For 46 years, the FFA has been serving students in this way. Its federal charter granted by Congress provides for this relationship.

If separated from the instructional program, the proficiency awards, the contests—all of FFA's major activities—become somewhat meaningless. Why? Because they would not be tied to the career objectives of students in a way that further prepares the students for their chosen vocation. To a large extent, they would lose their purpose.

The word "unique" has been used to describe the FFA. And indeed, unique it is. No other organization—and there are many good ones—is quite the same. But if FFA becomes separated from the instructional program of vocational education in agriculture, does it really have a reason to exist?

All of us—FFA members, vocational agriculture instructors, state staff, FFA Alumni members, and other responsible citizens interested in the quality of vocational education—must work to see that the FFA remains "integral" and serves the purpose for which it was founded.

Wilson Carnes, **Editor**

Dan Pursel races from high-speed accident analysis to high-speed cars.

Dan's duties as Senior Project Engineer on the Environmental Activities Staff at the GM Tech Center in Warren, Michigan, are not as fast-moving as his off-duty days at the races. But they do keep him moving from his office to computer to the GM proving grounds.

In his current project, Dan uses a computer to evaluate and analyze restraint systems, including air cushions. These results on the relative value of various restraint systems in life-saving and injury prevention will ultimately aid in the selection and further development of air cushions or other restraint devices. Some of these results were recently presented to some of the country's leading safety engineers at a General Motors sponsored Automotive Safety Seminar.

Dan is equally involved with automotive safety off the job. He's been a familiar face at Sebring, Daytona and Watkins Glen as a pit crew member on John Greenwood's Corvette racing team. And he's been a technical inspector for dragstrips. His latest project is building and racing his own car.

Dan Pursel is one of those people who makes his work his life. And helps make life better for all of us.

GM
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Interesting people doing interesting things.

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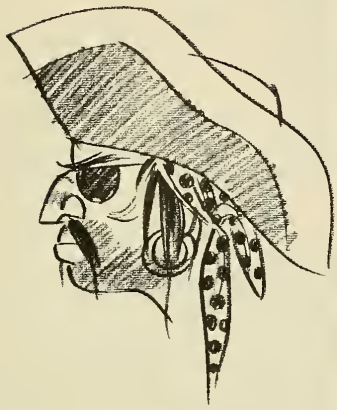

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Looking Ahead

Livestock

PROFIT PICTURE MISLEADING—The hog-corn price ratio, used frequently as an indicator of hog profits, currently suggests a bleaker profit picture than probably exists says Mr. Gene Futrell, an Iowa State economist. The difference between 1973 and 1974 corn prices explains why hog producers facing the current low hog-corn ratio are probably in a better position with $2.50 per bushel corn than with the same ratio and $1.25 per bushel corn. Accordingly, returns on hogs for most of 1974 are expected to be fairly good.

A.I. REQUIREMENTS ANNOUNCED—The ratification of new requirements for governing the artificial insemination of purebred dairy cattle has been announced by the Purebred Dairy Cattle Association and the National Association of Animal Breeders. Three basic premises provide for uniform keeping of records and semen identification, assign breeders and technicians increased responsibility in both the use of the semen and the preparation of breeding receipts, and permit restricted flow of semen through normal marketing channels. Details on the new artificial insemination requirements which become effective on July 1, 1974, can be obtained from dairy breed organizations.

Crops

FERTILIZER PRICES SOAR—Early indications are that prices for high nitrogen content fertilizers will be up 50 percent as needed supplies will fall short by a million tons in 1974. Supplies of phosphate will be short by 700,000 tons this year and prices will be up about 40 percent. Prices for potash will be in the area of 20 percent higher, but due to the lack of transportation rather than a potash shortage. In total this means the farmer's fertilizer bill will rise to $4 billion, nearly a 40 percent increase over last year, according to the USDA Outlook and Situation Board.

HYBRID PLANTING TRENDS—The trend of hedging against wet fall weather and fuel shortages with early-maturing corn varieties began in 1972 and appears to be continuing in orders for 1974, reports Mr. William Schapaugh, general manager of Asgrow's Agronomic Division. However, the farmer considering shorter season hybrids needs to think about such factors as soil type and moisture conditions to avoid sacrificing yield potential. Good soil, for example, can support 2,000 to 4,000 more plants per acre if smaller, shorter-season hybrids are grown.

Machinery

SALES CONTINUE STRONG—Based on a survey by the Farm and Industrial Equipment Institute sales of four-wheel-drive farm tractors are predicted to increase by 18 percent, according to Mr. Ronald Leafblad, director of marketing and sales for White Motor Corporation's Farm Equipment Group. Increases are also expected in milking, crop dryer, and farmstead equipment (10 percent), poultry and livestock equipment (7.5 percent), manure spreaders and forage harvesters (2.5 percent). Declines are predicted in the sale of self-propelled combines (5 percent), mower-conditioners (2 percent), balers (7.5 percent), combine corn heads (4 percent), and corn pickers (5 percent).

SHORTAGE STILL EXISTS—At the start of last year dealers had inventories of tractors, combines, and other major machines on hand. That is the only reason the farm equipment industry was able to sell over 197,000 tractors and 35,000 combines last year, says Mr. Thomas McDowell, director of marketing services for Deere & Company. Inventories are now depleted and this means the shortage of machinery could be even more intense, at least until early next year.

Just about everything we teach you in the Air Force is going to be helpful to you in civilian life. As a matter of fact, Air Force training and experience are two of the best references you can have.

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Air Force

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Demand creates jobs!

DEMANDS upon all natural resources are growing at a tremendous pace—not just petroleum and food. Timber needs, for example, are predicted to double and the demand for water will triple by the year 2000. Outdoor recreation requirements are also expected to increase by as much as eight-fold over the same time period.

Business, industry, and government are gearing up for the various aspects of natural resource management by increasing employment in appropriate areas. Expanding career fields include ecology, geology, geophysics, meteorology, forestry, range management, construction engineering, landscape architecture, and environmental protection.

The last category alone—environmental protection—will require 565,000 employees by 1980, according to Mr. Odum Fanning, editor-in-chief for *The First Annual Report of the Council on Environmental Quality*. Such jobs as farm planners, land use technicians, conservation camp directors, vacation farm managers, roadside developers, and plant pest control technicians along with many others fall in this category.

Based on a continuing demand, the number of jobs in natural resource management is predicted to double through the 1970's. This means almost 1,200,000 people will be working in environmental positions by 1980.

Careers in environmental protection are increasing with demand. *USDA Photo*

Career Profile

Agricultural Engineering. Experience gained in vocational agriculture through farm shop classes will be especially valuable in a career as an agricultural engineer. But beyond graduating from high school a college bachelor's degree is a basic requirement for such a career.

A typical four-year agricultural engineering curriculum requires study in mathematics, physics, and chemistry during the first two years. The last two are devoted to major courses with emphasis on agricultural engineering subjects.

For the most part agricultural engineers design machinery and equipment for use on farms. They also develop methods to improve the efficiency of production, processing, and distribution of food and other agricultural products.

Agricultural engineers, like other engineers, usually specialize in a particular area—research, design, testing, application, production, sales, or management. Basic career fields include farm machinery and buildings or agricultural processing equipment; electrical energy on farms or in food and feed processing; soil and water conservation or irrigation structures.

Most ag engineers are employed in private industry by manufacturers of machinery and supplies. Some, however, work as technical and management consultants to farmers and agribusinesses while others function as researchers at colleges and universities. State and federal governments also employ ag engineers in conservation and research.

Career opportunities for agricultural engineers are expected to grow moderately throughout the 1970's. Major factors will be the continued stress on farm mechanization, increased emphasis on conservation of resources, and the expanding population. In addition, higher requirements for energy and power on the farm will create more demand for agricultural engineers.

Career Shorts

Summer Conservation: Approximately 5,500 youth between the ages of 15 and 18 will be employed under the Youth Conservation Corps program this summer. The eight-week-long jobs, located at 178 camps in federally and state managed forests, parks, and other lands, pay about $300 plus food and lodging. Interested youth can obtain application forms, which must be submitted to recruiting agents by April 15, 1974, from Youth Conservation Corps, P.O. Box 2975, Washington, D.C., 20013.

Teacher Shortage. Nearly 1,100 vocational agriculture teachers are required annually to replace those achieving promotions, retiring, or entering other work, according to The National Vocational Agricultural Teachers' Association. Over the last five years, however, a national shortage of qualified instructors has occurred with an average of 137 vo-ag teaching positions remaining unfilled each year. The future demand for vocational agriculture instructors—estimated to increase by over 1,250 positions to almost 12,000 by 1975—points to a continuing shortage.

Job Experience. The American Junior Hereford Association (AJHA) is coordinating the Junior Job Experience Program between promoters of Hereford cattle and AJHA members seeking experience in the beef industry. For details on either short-term or long-term employment opportunities contact Mr. Gerald Roise, National Coordinator, Junior Job Experience Program, White Earth, North Dakota 58794.

More Career Information

Artificial Insemination: *Career Opportunities in Artificial Insemination.* Single copy free; bulk at 12 cents per copy with a minimum order of 10 copies from National Association of Animal Breeders, P.O. Box 1033, Columbia, Missouri 65201.

Farm Mechanics: *Agri-Mechanization . . . A Career of Double Reward.* Free from Mr. Lynn K. Huffman, Staff Secretary, Farm and Industrial Equipment Institute, 410 North Michigan Ave., Chicago, Illinois 60611.

Nursery: *Something Worth Doing.* Single copy free with self-addressed, stamped, business-sized envelope; quantities at $1.00 for 25 copies from American Association of Nurserymen, Inc., 230 Southern Building, 15th & H St., N.W., Washington, D.C. 20005.

Vocational Agriculture: *Opportunities in Teaching Vocational Agriculture.* One to three copies free; bulk quantities at 10 cents each copy or $4.00 per hundred copies from The National Vocational Agricultural Teachers' Association, Inc., Box 4498, Lincoln, Nebraska 68504.

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Vallie Pellett (Right) talks with his Firestone man, Jerry Bair.

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"Couldn't ask for better service than I get from my Firestone man, Jerry Bair. He's by here once a month just to check things out."

(Vallie and his sons Jim and Bill farm corn and soybeans around Atlantic, Iowa on their 2,000 acres. Since Vallie saw Columbiana, they've only bought Firestone tires.)

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modern mastitis management*
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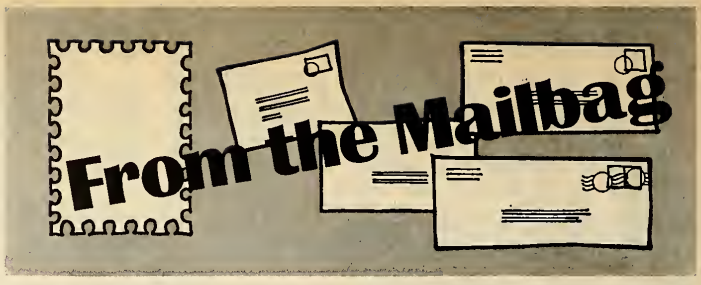

Chicago, Illinois

We think enough of the magazine that we felt we must raise a little "beef" over your February-March cover. It would be unwise for anyone to work around anhydrous ammonia equipment whether it's at the regulator, filler valve, or down at the knives, without using gloves and some sort of eye or face protection.

I've just had the opportunity to complete an analysis of 64 anhydrous ammonia accidents which occurred in the state of Indiana in the last couple of years. If anything bad can happen, it will. For instance, if this young man should trip the rope on that regulator valve, he could get a shot of ammonia from the hose upon which he is working.

The young man may feel that he is relatively safe in assuming that the tank is nearly empty. However, it is virtually impossible to get all of the ammonia out of the tank and as long as there is any liquid present, the vapor pressure can be high enough to cause trouble. The Indiana study disclosed more than one accident in which the operator was massively doused with ammonia just because the pressure release happened to vent just as he was passing nearby.

We don't like to be all negative. We definitely feel that anhydrous ammonia is very much worth the risk in applying and when done properly, should be just as safe as any other agricultural operation.

Bill Fletcher
Agricultural Safety Engineer
Farm Department
National Safety Council

Willshire, Ohio

We just received our February-March issue. I was in FFA myself during the late 1940's and have three sons who were members beginning in 1967. They have graduated and two of the three are now farming. I also have a son who is a freshman and member of the Parkway Chapter. So we look forward with great enthusiasm to receiving our magazine.

Being safety minded and safety conscious myself and training my four sons to try to spot an accident before it happens, we attempt to prevent all accidents possible.

I am very much disappointed to see your cover picture, distributed nationwide, picturing Randy Odegaard either adjusting or repairing an anhydrous ammonia applicator without the use of safety-protective goggles to protect his precious eyesight. Occasionally a fitting or hose can leak or worse yet burst, and eyesight be lost forever. Also rubber gloves should be worn to protect his hands and wrists. Future Farmer members in their agricultural classes and during shop sessions are taught safety. The photographer or Randy himself should have thought of putting on the safety equipment for the picture.

Bill Gamble

Washington, D.C.

The cover of the February-March issue depicts a potentially hazardous situation in regards to ammonia handling . . . even though the practice of farmers adjusting filled ammonia applicators without safety goggles and gloves is commonplace.

The enclosed materials will help explain the dangers and proper procedures. It might well be that your readers would benefit from an article on safe handling of ammonia products.

Donald Collins
Vice President, Communications
The Fertilizer Institute

Scanwood, Washington

I am writing to you in response to your article in our Future Farmer magazine. I read the stories and was particularly interested in the article called "He Works With Youth." I think this man, Mike Read, should be patted on the back for the fine tasks he has done for the Peace Corps.

So many of us don't realize how much we have and take for granted the things we do have. This man and his wife can truly be called citizens for their deeds.

Mich Michl

Windsor, Colorado

We would like to subscribe to *The National FUTURE FARMER* for our school board members and superintendent. A check for $5.00 is enclosed along with their names and addresses.

Windsor Chapter

Walkersville, Maryland

The Maryland FFA has planned a three-week study seminar to Europe, leaving from Washington, July 9. FFA members will visit typical farms and agribusinesses in England, France, Switzerland, Liechtenstein, Austria, Germany, Czechoslovakia, Denmark, and Sweden. In addition, we will visit many famous cities. We can accept several FFA members from other states in our group. Complete details and itinerary will be sent to interested FFA members or teachers.

Paul Stull
Vo Ag Instructor

Zephyrhills, Florida

After reading *The National FUTURE FARMER* I thought it was only appropriate to write and tell you what fine magazine you have. Your articles are very informative and I especially like the "Chapter Scoop."

Rick Hayford

Earning a high school diploma is good.

But is it good enough?

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A good job. A good life. The Navy: it's a good deal.

Be someone special. Join the Navy.

A Wildlife Refuge on the Prairie

To this chapter the refuge is more than a community project. It's a matter of survival for area wildlife.

MOST of the prairie soil in the Red River Valley of eastern North Dakota is especially suited for crop production. As a result there are few wildlife areas and the wildlife population is declining.

One wildlife refuge, however, is flourishing due to efforts by members of the Central Valley FFA which serves both Buxton and Reynolds communities. Guided by Advisor Lyle Rose the members are gradually changing a gravel pit into a scenic home for wild animals, birds, and ducks.

The likelihood of the wildlife refuge became possible when the tract of land

(Continued on Page 55)

Conservationist John Knecht helps the members and Advisor Rose, right, to make plans for improving the refuge.

The wildlife reserve is used by students in studying natural resources.

SCS Supervisor Knecht talks with Gary Brend about a plant on a field trip.

In South America, a shooter won an important match with "T22" ammunition.
In the U.S., people use 'em on tin cans and tough game, too.

Have you ever wished that someone would make a rim fire cartridge good enough for target shooting **and** plinking **and** small game? A cartridge that would give truly premium performance — without a premium price.

This cartridge already exists. It is called the "T22". And many rim fire shooters have found it to be the "everything" cartridge they have long been wishing for.

For the target shooter, the "T22" has established itself as accurate and dependable. Although many target shooters in the U.S. only practice with economical "T22" ammunition, in a recent major pistol match in South America one shooter shot the "T22" and won the match.

For plinking, or small game, the accuracy and dependable performance of the "T22" really pays off. From tin cans to crows to jackrabbits this is a cartridge that can handle them all.

Quality Components — Quality Control

There are good reasons why the "T22" is such an outstanding value. Target-quality components, for instance. Progressive-burning Olin Ball Powder® and consistent, non-corrosive priming mix provide a uniformly accurate propellant and instant ignition. And an improved lubricant keeps "T22" cartridges clean and ready even if you chamber them right from your pocket. But top quality components in themselves are not the only reason. With "T22" ammunition you can also count on the same quality control precision that goes into the famous Super-X® center fire ammunition. The bullets are designed for maximum stability, flat trajectory and superior wind-bucking. The brass case is precisely shaped for perfect chambering. And there is no compromise in these exacting standards — ever.

"T22" cartridges are available in 29-grain Short and 40-grain Long Rifle in both Winchester and Western brands. Try the "everything" cartridge next time out. Try "T22".

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Leadership

What does it take to be recognized as a leader? Replies to this question by advisors of the National FFA Officers identify some of the officers' most outstanding leadership traits.

Shepherd for Others

National President
Mark Mayfield
Caney, Kansas

IN high school Mark spent as much time helping others prepare themselves for leadership and competitive events as he did in preparing himself. Professor Ralph Field, Mark's freshman vo-ag instructor and now his faculty advisor at Kansas State University, discloses, "Mark has used his ability to listen and help others achieve their dreams. Upon graduation from high school his fellow classmates recognized him as 'their teacher.'

"Mark himself has stated that the one word which best describes a leader is 'shepherd.' The word exemplifies the ability Mark has shown in the use of his time and talents in the care for needs of others," continues Professor Field.

Caney Advisor Gary Parli further reveals, "Mark has a sincere love for the FFA and has devoted many hours of his time to promoting it. Because of his extemporaneous speaking ability Mark has been able to generate love and dedication among members."

Mark, an employee in his father's agricultural construction firm, repeatedly stresses how important the type of FFA training offered today is to the future of agriculture. "The future begins when you complete saying the word 'future,'" explains Mark. "You have to be interested in what happens tomorrow."

In a sense Mark's future as national president is your tomorrow in the FFA.

National Secretary
Frederick McClure
San Augustine, Texas

Getting to It

"FREDERICK, no one can tell you how hard you will work for the chapter better than you, so get to it." Those words, spoken by Advisor S. J. Nickleberry, inspired Fred, a town member who raises beef, to demonstrate his abilities to fellow members and to run for chapter president.

Nacogdoches Advisor Larry Poe, a past vo-ag instructor at San Augustine, states, "Fred's ability to communicate is most outstanding. While attending the National Convention a few years back I found he could meet members and advisors from all parts of the country on a one-to-one relationship. I am always impressed with the way Fred can meet people he has never seen before."

Fred's capacity to communicate his ideas becomes quite evident when you think about his thoughts on leadership. "Leadership is going to insure the success and prosperity of agriculture that is yours and mine," he believes. "Because we learn how to take part in meetings and how to speak in public, we are learning how to be young farm leaders."

"Frederick is in constant search of greater goals and is always trying to be tops in everything he attempts to do," affirms Advisor Nickleberry. "He has learned to give his best in the belief that the best will come back to him."

So from Fred's standpoint, communicating leadership is a "get to it" thing.

Desire to Excel

North Atlantic Vice President
Doyle Waybright
Gettysburg, Pennsylvania

"DOYLE is honest, loyal, and dependable. Little failures have not diminished his desire to improve farming and agriculture," remarks retired Vocational Agriculture Instructor Elmer Schriver, now a consultant with the Waybright family corporation. "I have followed Doyle's activities throughout his life. He has an intense desire to improve farming and agriculture."

This ambition is often revealed when Doyle talks about the need for competition and a free enterprise to stimulate quality and efficiency in farming. Doyle, a stockholder in the 500-cow dairy, often emphasizes his point by saying, "The American farmer is very proud of his work, very proud of his productivity, and very proud of his progress."

As a freshman Doyle had a scheduling conflict which prevented him from attending several periods of agriculture. But as his current Young Farmer Advisor George Glenn, who was his vo-ag teacher at the time, remembers, "Doyle had the necessary drive, desire, and ambition to get all the notes missed when absent from class. At the end of the year I had a rather comprehensive examination on the FFA, and Doyle was the top student with 150 points out of a possible score of 154."

Fortunately for the FFA, the vice president's desire to excel was discovered early by both of the Battlefield Chapter advisors.

in Profile

Stories and Photos by Ron Miller

Central Vice President
Keith Mohler
Mulberry, Indiana

Unending Zeal

AT the district FFA convention Keith competed in the impromptu speaking and talent contests, on the parliamentary procedure team, and for the district leadership award, all in one afternoon. Advisor Dale Henze, who began teaching in Rossville at the end of Keith's junior year, reports, "Keith handled the pressures of the day well by winning three of the contests. He seems to always have unending energy and dedication for helping out with any activity that needs to be done."

Agricultural Bank Representative Jim Need, the national officer's freshman vo-ag teacher, recalls, "While judging the district leadership contest I asked Keith a question dealing with national politics and social concerns. He knew my feelings on the subject but still explained his viewpoint in a way that made me reconsider my own position. A man of lesser qualities would have altered his to mine in order to win the contest."

With like conviction and sincerity Keith has developed a growing interest in agricultural education. "Vocational agriculture and FFA provide an atmosphere of competition and a chance for recognition of its members," affirms Keith, who lives on a 400-acre crop farm. Continuing to exert "unending energy and dedication" for the FFA, Keith is now striving to become a vocational agriculture instructor himself.

Goals to Fulfill

Pacific Vice President
Jay Phillips
Springville, Utah

"EVERYTHING Jay has accomplished is a direct result of determination," reasons Springville Vo-Ag Instructor Robert Brock. "In high school he made up his mind to be an "A" student and he graduated an "A" student. With his hog enterprise he was determined to produce the best hogs in the area and if it meant going to Kansas or Missouri to buy breeding stock that's where Jay went."

Advisor Loren Phillips, the head instructor, also describes his son as being resourceful and determined. "During his sophomore year he was second in public speaking at the chapter level. In his junior year he won the chapter contest and placed second at the area level. As a senior Jay won first in chapter, area, and state levels and placed fourth in the Pacific Region contest. This indicates progress through setting a goal years ago of participating in the National Public Speaking Contest," relates his father.

According to Instructor Brock, Jay's determination carries over in his cooperation with others for accomplishing mutual goals, too. A phrase often spoken by Jay points this out. "All things are not worth anything if people cannot sit down at one table and constructively air differences."

Jay, intent on obtaining a master's degree from Utah State University and working in the food industry, is truly set on fulfilling his goals.

Southern Vice President
Jimmy Alvarez
Starke, Florida

A Team Attitude

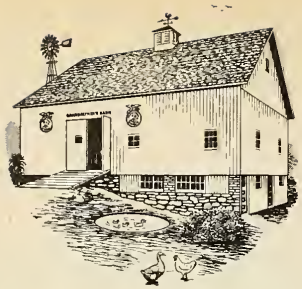
JIMMY'S cooperative spirit came to the forefront early in his first year of FFA when he competed on the chapter forestry team. The chapter placed fourth, but Jimmy and another student won the log rolling contest.

"This was a start," remembers Instructor David Smith, Jr., who is now advisor of the Interlachen Chapter since leaving Bradford High just a year ago. "From this first activity Jimmy cooperated in just about every activity the chapter was involved in. He already had the ability to get along with other students and was usually playing the role of peacemaker."

Reaffirmingly, Bradford Sr. Chapter Advisor Paul Hutchins says, "Jimmy makes friends easily and has always been a good competitor. He has confidence in his own ability to achieve."

Yet it took a setback in Jimmy's senior year to strengthen his positive thinking attitude. After failing to win either the district Star Farmer award or public speaking contest he was dejected. Then one day Jimmy came to Advisor Hutchins and said, "All is not lost. I want to be president of our state association."

Still achieving with a team attitude Jimmy stresses, "All of us as FFA members have to learn to work together and cooperate so we can see more clearly we are brothers. In the FFA we prepare ourselves for places of leadership in agriculture through cooperation."



Grandfather's Farm Presents...

Young and old would agree that "Grandpa'd be 'right proud' of his old farmyard, if he could see it now."

DUCKS swam in the pond, pigs squealed, ponies neighed, and the laughter of children could again be heard around the old barn located on the Iowa State Fairgrounds at Des Moines. The barn is now a part of the fair's agricultural exhibits, mostly through the efforts of the Ankeny FFA Chapter, and their advisor, Bruce Jones.

Located on its original site, the barn is over 100 years old and offers many unique features. Wooden pegs still join the old rafters. A stone foundation and brick floor are visible on the lower level. Every part of this well-preserved antique structure was dusted, swept, and scrubbed by some 15 Ankeny FFA members and their advisor who even enlisted the help of his wife.

Ankeny FFA members promote the farmyard in the Iowa State Fair parade.

The two large Belgian horses were a big attraction when taken for water.

Ankeny is a town of nearly 13,000 people located about 10 miles north of Des Moines. For 14 years, the chapter had operated the fair's Children's Farmyard from a tent. By moving to the old barn, they could more than double the number of animals.

According to Mr. Jones, "All the work was done on the farmyard to give both children and adults from an urban environment the opportunity to see and pet farm animals."

Children and adults flocked to the farmyard. Crowds ranging between eight and fifteen thousand were estimated daily. Farm animals were in abundance—over 70 this past year. Most of the animals were provided by people in and around Ankeny. Occasionally the chapter will go further for animals such as two years ago when they went to northeast Iowa to get a set of triplet Angus calves.

The animals ranged from small ones, such as rabbits, kittens, and chicks to "Barney and Doc," two giant-sized Belgian horses on loan from Iowa's Living History Farm and Mr. Dick Sparrow of Zearing, Iowa, who owns the famous 40-horse hitch.

Outdoors the farmyard has numerous farm implements used over the past 100 years on display while inside there are smaller tools of the same era.

FFA members answered the visitors' numerous questions last year and handed out a brochure telling about the FFA and Iowa agriculture. Advisor Jones came up with the idea for the cover of the brochure which was prepared by a commercial artist. The information was verified and the printing was obtained through the Iowa Development Commission, Agriculture Division. Next year, Jones says, "We are going to also have a continuous tape running all the time with information about the farm and animals."

All Ankeny FFA members took turns caring for the farmyard and the animals throughout the ten days of the fair. They even brought sleeping bags and slept in the hayloft at night. The fair is held the week before school begins so there is no problem of getting members out of school.

According to Jones, "FFA members benefit from leadership development, they learn to accept responsibility, and get the experience of working together."

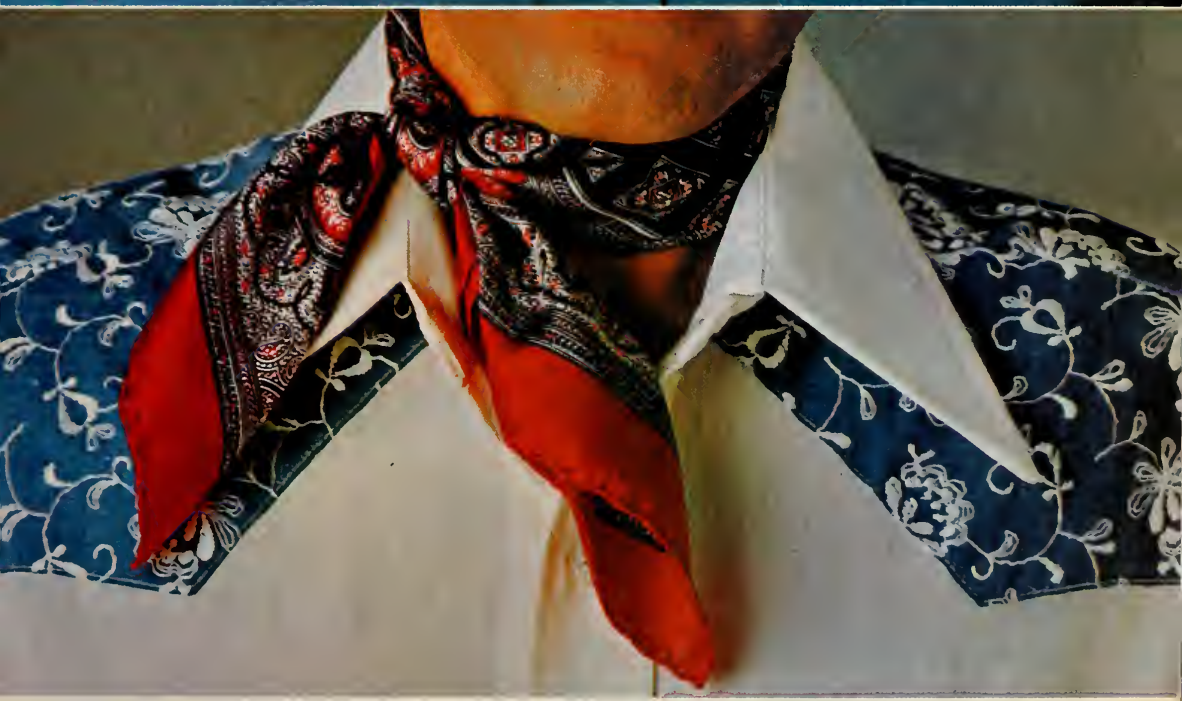
Iowa FFA Advisor Gerald Barton says, "The children and adults who have never known a farm are those we are most concerned about although this is a real treat for anyone to see a farmyard as it was in grandfather's day."

All of the expenses for feed and similar costs are paid by the Iowa State Fair and the Iowa FFA Association. The chapter pays for mileage, cost of setting up, and things like that.

"Grandfather's Farmyard looks like it's here to stay at the Iowa State Fair," says Mr. Ken Faulk, secretary of the fair. He spoke of it as one of the most popular attractions at the fair.

Randy Albaugh, left, and FFA Advisor Bruce Jones show a jenny and her colt.

Gary Campbell, left, and Dave Johnson with other examples of the animals.



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Banquets Can Be ORIGINAL

Here is what some chapters do to put a little "spice" into their banquet.

EVERY year FFA chapters are faced with an old, familiar problem—what to do that's new and different for the chapter banquet.

It has been said that there is not a "new idea" under the sun. Yet just a few changes from the routine can make a traditional event like a banquet more fun, exciting, and somewhat original.

Selecting a prominent speaker adds interest to a program, and a good master of ceremonies can jazz up the presentation of the awards. But perhaps even more excitement can be generated at a chapter banquet with a different meal, creative decorations or displays, and special events for entertainment.

Banquet Menus

Most people like variety—especially when it comes to food.

The Waupaca, Wisconsin, Chapter tried the idea of a potluck supper for their first banquet. They sent out letters inviting the parents of the members to bring their own dishes and silver, plus a dish to pass. Special guests including school administrators, school board members, the county extension agent, and members of the FFA Advisory Council were also asked to bring their own utensils.

The flexibility worked nicely as the meal required little outlay of money and provided enough variety of food so everyone got to eat something they liked. A local distributor donated the ice cream and the chapter purchased the milk and coffee.

In another instance the Lovington FFA of New Mexico, used beef donated by a local rancher for their banquet. The members cooked the meat in a pit on the ranch and brought it to the cafeteria. The remainder of the food was prepared in the cafeteria by the FFA members with the assistance of the school cook, but the outdoor flavor of the meat made the banquet meal something special.

The Laurens, Iowa, Chapter broke their banquet tradition by treating parents and guests to a smorgasbord meal at Ken-A-Bob's in Storm Lake. A smorgasbord banquet at a restaurant also provided a welcome change for the Conway FFA of Missouri. Members in Goshen, Alabama, tried another idea—a weiner supper.

A regular practice of South Dakota's Willow Lake Chapter is varying the menu every year. Members vote to decide which type of meat will be served, and the meal committee then makes arrangements for appropriate dishes to go with the main course.

Chapter banquet menus featuring barbecued chicken, rolled turkey breast, Salisbury steak, smoked ham, baked salmon, chuck wagon steak, or other meats will all add variety to the meal. By now the Greenhand can almost "taste" a different banquet for the next four years.

Decorations or Displays

Clever stage backdrops or table decorations make interesting conversation pieces for most persons attending a chapter banquet.

Koontz, New Mexico, members placed a lighted FFA emblem on the wall in back of the speaker's table. They further decorated the center of all the tables with miniature farm implements to go with the agricultural theme of their banquet and blue and gold streamers.

In Modesto, California, members went all out to display 50 years of existence at their Golden Anniversary Banquet. They exhibited chapter trophies, banners, old scrapbooks, yearbooks, and served a catered meal so over 400 former members and guests could reminesce about old times.

And just as an anniversary banquet provides opportunities for new displays,

(Continued on Page 41)

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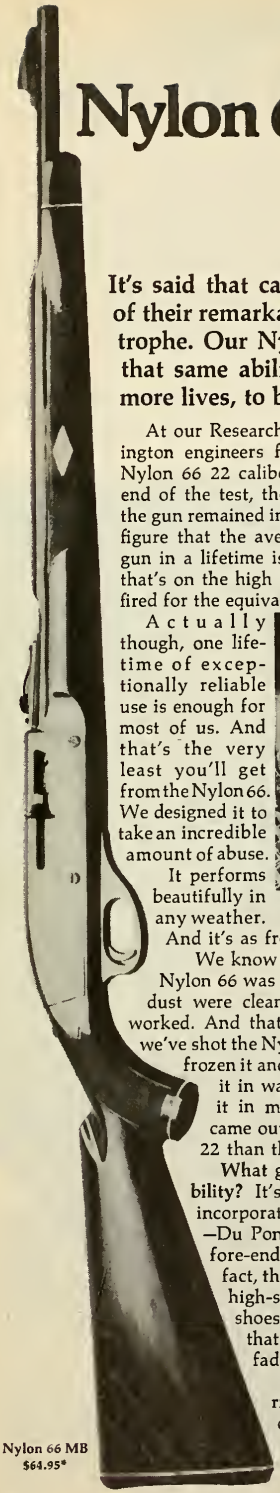
Nylon 66. The gun with nine lives. And then some.



It's said that cats have nine lives, because of their remarkable ability to survive catastrophe. Our Nylon 66 automatic rifle has that same ability. And it has at least six more lives, to boot. Here's the story:

At our Research Center in Ilion, New York, Remington engineers fired *75,000 rounds* from a single Nylon 66 22 caliber, automatic rim fire rifle. At the end of the test, there had been no malfunctions and the gun remained in good firing condition. Now, if you figure that the average number of rounds fired in a gun in a lifetime is approximately 5,000 rounds—and that's on the high side—then that Nylon 66 had been fired for the equivalent of *fifteen lifetimes.*

Actually though, one lifetime of exceptionally reliable use is enough for most of us. And that's the very least you'll get from the Nylon 66. We designed it to take an incredible amount of abuse. It performs beautifully in any weather.

Remington engineer test firing the Nylon 66.

And it's as free of malfunction as a gun can be. We know of one story, for example, where a Nylon 66 was burned in a fire. After the soot and dust were cleaned from it, the gun was fired. It worked. And that's not surprising, because in tests we've shot the Nylon 66 at a scorching 250° F. We've frozen it and fired it at minus 40°F. We've soaked it in water. Covered it with dust. Buried it in mud. And each time, our Nylon 66 came out shooting. If you can find a better 22 than that, buy it.

What gives this gun its remarkable durability? It's the exclusive Remington design incorporating a super-tough structural nylon —Du Pont ZYTEL®—as the material for the fore-end and stock. ZYTEL is so tough, in fact, that it's used to make everything from high-stress machinery gears to horseshoes. In the Nylon 66, it makes a stock that will not warp, crack, chip, peel or fade for the life of the gun.

So you have an extremely rugged rifle that doesn't need babying. It can bounce around the back of a truck, lie in a dusty closet for months, slosh around in the bottom of a canoe or even sit outside your igloo day after day. And every time, when you're ready to use it, it's ready to fire.

And when you fire your Nylon 66, you'll find it an exceptionally accurate gun. The same barrel-bedding principle used on the world's most expensive target rifles is used on the Nylon 66. The action never needs lubrication, either, because the metal parts glide on "greaseless bearings" of nylon that resist dust, dirt and grit, a cause of malfunctions in other automatics.

Did you ever hear of Tom Frye? He was a Remington Field Representative when the gun was first introduced in 1959, and he wanted to demonstrate its amazing performance and accuracy. So using two Nylon 66's in relays (and Peters 22 long rifle cartridges), he had assistants toss 2¾" wooden blocks as targets. *Out of 100,010 targets tossed, Tom hit all but six*—a record which stands to this day. There wasn't a single malfunction, and the guns finished in great shape.

We think the Nylon 66 is the most rugged rifle you can buy. And for the money, one of the most accurate. It's available with either a brown stock and blued receiver (Mohawk Brown model—$64.95*), or a black stock with a chrome-plated receiver and barrel (Apache Black model—$69.95*). Both are tube-fed and have a capacity of fourteen 22 caliber long rifle cartridges.

And while you're at it, get yourself a supply of Remington high velocity 22s with "golden" bullets. They're coated with a special hard, dry lubricant that won't pick up dirt or lint to carry into the mechanism of the rifle. And they have "Kleanbore" priming so they won't leave residue to corrode the barrel. (This ammunition is designed and tested to work efficiently with the Nylon 66. So it makes sense that you should use it.)

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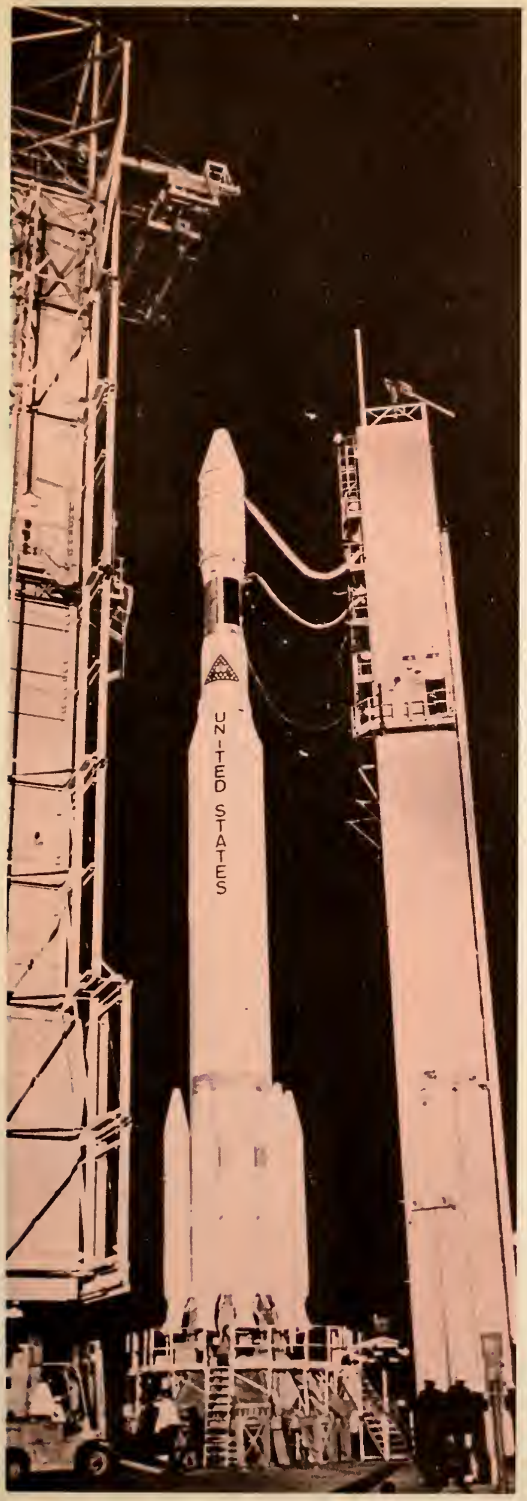


A New Way to "See" the Earth

The first environmental satellite is still sending back information about our Earth. Here's where we are today.

By Ron Miller

SPACE technology is coming up with new ways to solve the Earth's problems—the food shortage, energy crisis, pollution, population growth, urban decay, and the diminishing land, mineral, and water resources. And *changes* caused by "space" solutions to these problems will be more drastic on your life than any other generation, regardless of what career you choose.

Space research in the area of agriculture began in February 1965 when the United States Department of Agriculture (USDA) and the National Aeronautics Space Administration (NASA) combined efforts to conduct ground, airplane, and space experiments. Then in 1970 the Earth Resources Technology Satellite (ERTS) program, managed by NASA but involving the USDA, the Departments of Commerce and Interior, the Environmental Protection Agency, and the Army Corps of Engineers, got its start.

To date the success has been phenomenal. Since ERTS-1 (pictured at the left) was launched on July 23, 1972, NASA has produced over one million ERTS photographic products for some 300 major investigators assigned to the project. Images are made available in a variety of forms to researchers located in the United States and 36 foreign countries.

The ERTS-1 carries two imaging systems: the Multi-Spectral Scanner (MSS) designed by Hughes Aircraft and the Return Beam Vidicon (RBV) camera system built by RCA. These remote sensors each collect digital data for making "photos" in three bands, *green, red,* and *infrared.* The MSS has a fourth band, *near-infrared.*

The satellite also carries a Data Collection System (DCS) made by General Electric to receive messages from remote electronic platforms distributed over North America. The platforms measure water quality, rainfall, snow depth, and ground movements at usually inaccessible sites.

ERTS-1 makes 14 orbits a day photographing a 185 kilometer wide (115 statute miles) swath of the globe. Traveling in a near-polar orbit 560 miles high the spacecraft takes pictures of the Earth every 18 days, averaging about 190 scenes per day. Each picture covers an area of over 34,200 square kilometers, or 13,200 square miles.

Soil conditions, bodies of water, and plants have unique radiation characteristics called "spectral signatures." To achieve color pictures the bands are assigned colors and combined to make "false" color composites.

Healthy crops, forests, and other green plants have high

(Continued on Next Page)

A New Way to "See" the World

(Continued from Page 23)

reflectivity in infrared and are shown in red. Suburban areas with little vegetation appear as pink, barren lands show up as either gray or white, and large cities—particularly industrial areas—appear as dark gray. Water is shown in varying shades of blue. Sometimes other colors are introduced to highlight certain features.

So far 75 to 80 percent of the Earth's surface has been photographed repeatedly by the equipment aboard the satellite. And despite the failure of one of the spacecraft's two tape recorders and the shutdown of the RBV system, ERTS-1 is still sending back valuable information.

Progress in Agriculture

"One of the greatest benefits to agriculture, range resources, and forestry is the repetitive coverage of ERTS," emphasizes Mr. Charles Poulton, an Oregon State researcher. In some disciplines (areas of study) repetitive coverage is not important, but in agriculture it is critical."

The use of satellites in agriculture is still in the stage of basic exploratory research explains Dr. Robert Miller, acting assistant of research for the USDA Agricultural Research Service. Yet early results from ERTS data hint operating conditions for several practical agricultural applications are not far away.

Crops. So far such crops as corn, soybeans, popcorn, winter wheat, rice, safflower, asparagus, and cotton can be readily identified with ERTS imagery. For example, researchers at the University of Kansas have used ERTS data to estimate winter wheat yields over a ten county area. The forecasts were within 3 percent of the pre-harvest estimates prepared by the Statistical Reporting Service (SRS). To date crops can be inventoried from satellite data with about 90 percent accuracy at a fraction of standard surveys.

The SRS also has test sites in Kansas as well as Missouri, Idaho, and South Dakota for evaluating ERTS photography as a crop prediction tool. SRS experts Messrs. William Wigton and Donald Von Steen agree ERTS data cannot replace present estimating practices but can improve crop estimates and reduce variances. ERTS can further help in the selecting of area samples for special surveys.

University of California investigators are applying satellite photography to detect field conditions—growing crops, plowed fields, harvested fields—in the Imperial Valley for fields as small as ten acres. Utilizing ground, aerial, and space imagery they have devised an efficient system for making regional crop inventories.

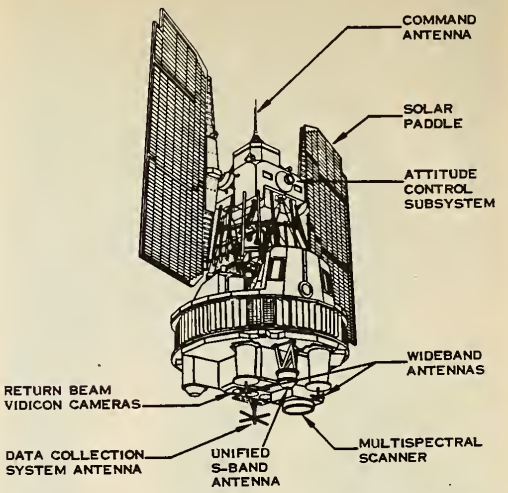
Forestry. ERTS images of the Seward Peninsula of Alaska, were used to identify seven types of vegetation where only four kinds were previously known. Old burns of various ages and the rate of revegetation of these scarred areas are still being monitored.

An ERTS study of the Boreal Forest Region in Alberta, Canada, revealed timber volume and quality estimates of white and black spruce, lodgepole pine, and poplar. The Canadian Forest Service combined aerospace photography and ground sampling to compute the measurements.

The brown wave (the north to south advance of foliage coloration in the fall) and the green wave (the northward progression of the leaf development in the spring) is easily recognized by satellite photography explains Professor Bernard Dethier of Cornell University. This information has special application to future forest production.

Soils. Professor Frederick Westin, a plant scientist at South Dakota State, used 1: 1,000,000 enlargements of space images to improve general soil map accuracy. Another investigator in Columbia, South America, mapped unknown areas using ERTS soil association maps, existing soil maps, and sample strips of aerial photography.

This drawing shows the major components aboard ERTS-1 and the observation position as it circles the Earth. *USDA Photo*



"In Missouri we have used remote sensing (the method used in obtaining space photographs) to map soil patterns and even organic content of bare soils," points out Mr. Christian Johannsen, a University of Missouri agronomist. "It appears that other factors such as moisture, iron content, amount of erosion, soil drainage patterns, and color can also be mapped."

Range. Research conducted by scientists at Texas A&M University has been established to provide practical range information for ranchers and farmers in the Great Plains area. Range condition data obtained from ERTS will be especially valuable to 400,000 Great Plains farm and ranch owners who produce over 40 percent of the nation's beef.

Significant results is also reported from a range investigation taking place in California. There the growth rate of grasslands is being monitored, and information is being used to forecast potential fire hazards caused by lush growth of annual grasses.

Disasters. An analysis of ERTS photos precisely located an area on the Red Sea coastal plain of Saudi, Arabia, where desert locusts produced swarms. According to Mr. D. E. Pedgley of the Centre for Overseas Pest Research in London, England, growth vegetation shown in satellite pictures was later confirmed with data obtained from ground surveys.

The full benefits to agriculture came into clearer focus, however, with the observation of last year's flooding. On March 31, ERTS-1 photographed the point where the Missouri River joins the Mississippi River with the water level at 38 feet, just shy of crest stage. ERTS also captured the same point on October 2, 1972, and on May 5, 1973. The repeat coverage helped investigators to make accurate assessments of crop damage caused by the disaster.

The total value of ERTS to world agriculture is hard to assess. However, early detection of flooding, fire, insects, and disease can provide timely control and effectively reduce the $13 to $20 billion in annual loss to the U.S. alone from these enemies.

Success in Other Fields

Environmental Surveys. Progress from using ERTS images for solving environmental problems in lakes, rivers, and coastal waters include correcting several cases of water pollution with sewage control. Land contamination has been located on images, also, and remedied with reclamation practices. Monitoring of air pollution (aerosols) and studies

of wildlife habitats (grizzly and waterfowl) now underway will gradually lead to better ecological management. Many types of pollution (gaseous), however, have not been identified with the satellite's remote sensing system.

Land Use. So far satellite imagery has been used to categorize land in urban areas as suburban, grass, and wooded suburban. The suburban classification denotes metropolitan areas, and the grassland consists primarily of parks, golf courses, and cemeteries. The wooded suburban is mainly residential. Land use data, says Dr. David Lindgren, a researcher at Dartmouth College in New Hampshire, is an indispensible capacity if we are to control urban growth and protect our land resources.

Mapping, Charting, Data Interpretation. The maps, technically known as mosaics, can be made as black and white prints from any of the four bands. Three bands, including one infrared, are required for making color reproductions. According to Mr. William Johnson, deputy Soil Conservation Service administrator, visual mosaics of 48 states enlarged at a scale of 1:5,000,000 are the most informative maps ever made available to interpreters.

Marine Resources, Ocean Surveys. Although not originally designed for studying ocean waters,. ERTS-1 information is being adapted for measuring sea depths, monitoring ocean currents, tracking ice movements, and examining fishery resources. Space imagery is also being used to update circulation charts of coastal waters and in the planning of near shore construction.

Mineral Resources, Geological Structures, Landform Surveys. Since geology depends almost entirely on maps, unknown features of the Earth's crust—folds, faults, intrusions, volcanic flows—are constantly being discovered and mapped. Such investigations of ERTS imagery suggest applications to the discovery of minable minerals and petroleum deposits, emphasizes Mr. William Fischer of the Department of Interior's Geological Survey.

Water Resources, Hydrology. Using ERTS data researchers are now monitoring such things as wetlands, shorelines, algae, erosion, irrigated fields, glaciers, and snow cover. The ability to locate, for example, surging glaciers which block large quantities of water will permit precautionary measures to be taken and limit flood destruction, reports Dr. Vincent Solomonson, a researcher at the Goddard Space Flight Center in Maryland, where management of the ERTS project is conducted.

NASA engineers in the control center at Goddard Space Flight Center monitor the status of the ERTS-1 orbit.

NASA Photo

USDA Photo

Conservation cartographers are using mosaics as base maps for plotting soil types by state and by region.

Future Resource Explorations

A second ERTS satellite is currently scheduled to go into orbit late this year or early 1975. Researchers say ERTS-2, previously set for launching last year, was delayed because ERTS-1 far exceeded its one year of usefulness.

More environmental research known as the Earth Resources Experiment Package (EREP) is being conducted as part of the Skylab program. Astronauts on both the 48-day Skylab I and the 59-day Skylab II missions captured several thousand actual film color photos of terrain, environmental, and meteorlogical subjects.

Skylab III astronauts, who splashed down from their 84-day flight on February 8, conducted atmospheric experiments and took some 19,400 earth resource photos with mounted cameras from their 260-mile-high, oval orbit.

Following the ERTS and EREP programs will come a new generation of Earth observing platforms called Earth Observatory Satellites (EOS). These satellites, proposed for the late 1970's, will combine experiments of meteorological and land resources, along with making a variety of ocean surface measurements. Three new instruments now under development will improve photo resolution, scan selected targets, and examine areas hidden by clouds.

Another program known as the Synchronous Earth Observatory Satellite (SEOS) will have the advantage of scanning a target over a long latitude upon command. This capability will make it possible to monitor severe storms, floods, drifting ice, forest fires, or oil spills immediately after they are reported.

So far as one can visualize, space exploration of the Earth's natural resources will have a great affect on your life and agricultural career. In fact, weather satellites already providing photographs and sensing dynamic temperature changes will extend long-range forecast of three days to reliable two-week or longer predictions in the future.

On the Go with Hogs and Beef

Attending livestock shows has been a big asset to this young stockman's business.

GALEN Crawford, of Roca, Nebraska, entered vocational agriculture with a farming enterprise of one gilt. At that time he told his father, who is employed in Lincoln, "I'm going to fill this farrowing house with hogs some day."

Today, just five years later, Galen has a farrowing house full of sows and little pigs, and barnyard full of bred gilts, and six new individual wooden farrowing sheds in constant use.

Galen has exhibited his hogs at state shows, county fairs, and the American Royal Livestock Show. Among his top swine placings are a first at the York, Nebraska, Market Hog Show, a champion Chester White gilt at the Nebraska State Fair, and a champion Spotted Poland China barrow at the American Royal Livestock Show.

"We look for Galen to become one of the outstanding purebred Chester White breeders in the Midwest," says Norris FFA Advisor Larry Viterna. "Watching him exhibit his livestock at shows across Nebraska and nationally, one sees the interest this efficient producer has in livestock."

While developing his swine herd Galen also acquired five registered Shorthorn cows and a half-interest in 18 other Shorthorns. He has sold and exhibited market beef—including the reserve champion Hereford steer at the American Royal.

In the spring of '73, Galen and his father formed a 50-50 partnership. Their Shorthorn herd now totals 30 head of breeding cattle and 5 steers. Continuing to show his beef cattle Galen exhibited the grand champion female of the FFA Shorthorn Show at last year's Nebraska State Fair.

The Crawfords own 200 acres of cropland and operate another 40 acres of rented land Since his father works off the farm Galen provides almost all of the labor and management needed to run the farming operation.

Galen's hog program numbers as high as 150 head during farrowing season, including sows and their litters. Among his registered Chester White breeding stock are 10 gilts, 10 sows, and 2 boars. He farrows his sows twice a year and sells most of his pigs as feeders.

Last year when Galen received the Nebraska Star Farmer honor he became the third of the Crawford brothers to earn the State Farmer degree. Galen upon being asked by his father what he was going to do with the $200 award immediately replied, "I am going to buy a hog scale to use in production and marketing." Advisor Viterna also notes that all three Crawfords earned the Star Chapter Farmer award in the Norris Chapter which was chartered in 1965.

Galen served the chapter as secretary, president, and as chairman of the parent-son banquet and farm enterprise tour committees. He further participated on the chapter's livestock judging team—winning several high placings including the first individual honor at two area market hog shows.

Putting this judging experience to full use the full-time farmer selects hogs to enter in the market and carcass classes at shows sponsored by the Nebraska Pork Producers Association. "Attending and exhibiting at livestock shows keeps me up-to-date with the type of animals demanded by the market," explains Galen, a member of the Chester White Breeders Association.

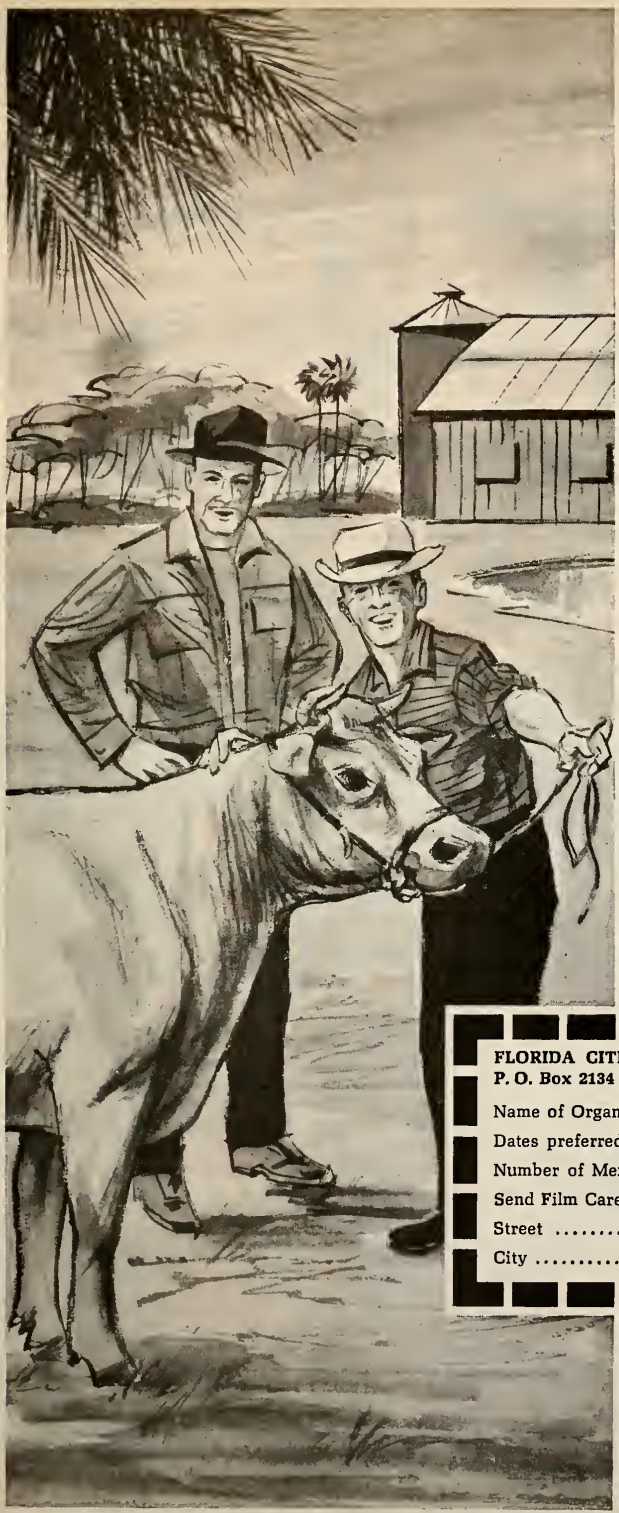
Noting that Galen attended livestock shows as far away as Springfield, Illinois, and Columbia, Missouri, last year it is easy to realize why this "on the go" stockman is being recognized as one of the outstanding hog and beef producers in the Midwest.

Galen often consults Advisor Viterna about pedigrees of breeding animals.

Throughout the winter the young farmer feeds his stock cows and bred heifers mostly hay and some concentrate.

Every morning at chore time Galen checks litters for pig pox and if necessary treats them for the disease.

Staff Photos



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Maintaining and Using Tractor Loaders

Your tractor loader, one of the most used pieces of equipment in a livestock operation, will last longer if you use these suggestions.

By Melvin Long

THE manure loader is an outstanding example of replacing muscle power with mechanical power. It was one of the earliest labor-saving devices for use with the farm tractor, and continues to occupy an important place in livestock farming operations.

Here are some of the techniques that Massey-Ferguson machinery specialists suggest to help you get full benefit from your hydraulic helper.

Tractor. First, the tractor itself must be properly prepared.

When the loader is in use, weight is transferred from the rear to the front wheels of the tractor. This basic principle is the reason for several items of preparation on the tractor.

Remove all front frame weights and front wheel weights from the tractor. Inflate all the tires to the recommended pressures. Check the entire steering system for looseness and free play, adjust or repair if needed, and lubricate to reduce steering effort.

Some form of rear weighting is necessary to secure traction. If you have liquid in the rear tires, this may be adequate. Weight can also be added by installing cast-iron wheel weights.

If your particular farming operations require that you install and remove the loader at frequent intervals, some type of quick-on, quick-off rear weighting arrangement can add considerable convenience. For example, if your tractor has a three-point hitch for integral implements, you can make a "weight basket" of angle iron.

Weld on the pins or other attaching points required by your tractor hitch. Arrange the basket to hold concrete blocks, wheel weights, or other heavy objects you have available. The total weight of the hitch basket will be limited by the capacity of the tractor hitch system. For most tractors, a basket weight of 800 to 1,000 pounds will be satisfactory.

With this arrangement, all that is required to add the rear weight is to back up to the basket, hook up the hitch, and lift the basket just as if it were an implement. Removal of the weight is equally easy.

The rear tractor tread should be adjusted as wide as possible consistent with shed doors or other openings through which you will be driving. The wide wheel tread increases tractor stability, making loader operation safer.

Hydraulic System. Machinery specialists emphasize that dirt is one of the greatest enemies of any loader hydraulic system. There are several small passages in the control valve. Only a small amount of dirt is required to clog these passages enough to cause poor loader operation.

Dirt also acts as an abrasive causing excessive wear to moving parts of the hydraulic system. Early failure of the fluid seals is one possible result. Another is failure of the hydraulic pump.

Keep dirt out of the hydraulic system by observing these precautions:

- Use only clean hydraulic fluid.
- Keep it clean by handling it in clean containers.
- Clean all dirt away from the area around the filler opening before removing the plug to check the fluid level or to add fluid.
- Clean the hydraulic connections before assembling or disassembling when installing or removing the loader from the tractor.

The fluid level of the loader hydraulic system should be checked daily. Low fluid level can prevent the loader from raising full height; it can cause the pump to draw air and result in foaming of the fluid; and it may even cause damage to the pump because the pump is lubricated by the hydraulic fluid.

Some loaders are equipped with a screen-type filter on the pump inlet. If this filter becomes clogged, it prevents fluid from flowing to the pump. This has the same effect on the pump as if the system were low on fluid. So, check your manual to determine whether your loader has an inlet screen. If so, be sure to service it regularly.

Use only the recommended type, grade, or brand of fluid. If the loader has an independent hydraulic system, follow the recommendations of the loader manufacturer. If the loader is

(Continued on Page 35)

Good maintenance practices help keep loader costs down and productivity up.

If you're thinking about the military, you've got three choices or one challenge:

1. _____
2. _____
3. _____
4. The Marines

WE'RE LOOKING FOR A FEW GOOD MEN.

Better Hogs With Testing

One of the tools used by this FFA chapter in their performance testing program is sonoray.

Advisor Newham helped D. J. Tweedie and his dad select boars for testing.

Association members and Advisor Newham help Ronnie Brock, left, and Kerwin, behind, weigh their test boars. *Photo by Ron Miller*

A COUPLE of years ago hog producers in the Stet, Missouri, Chapter discovered more breeders were demanding performance tested boars at sales. In the fall of 1972 the chapter began filling this need in their area by organizing the Stet Junior Swine Breeders Association.

In their first year of operation eight junior and senior FFA members joined the association and elected a president, vice president, and secretary/treasurer. These officers along with two more association members and the advisor make up the board of directors for the group. In addition to regular duties the board serves as the screening committee for selecting boars to be sold at the production sale.

Following the organizational meeting the Stet Junior Swine Breeders invited their dads to the next meeting to set up standards for hogs on test. Requirements for the boars and gilts include eligibility for registration, a starting weight of approximately 60 pounds, a record of birth dates and test dates, feeding regulations, and a completing weight of approximately 220 pounds.

When the members' baby pigs reached about 40 pounds Advisor Bill Newham helped the FFA members take check weights and select test animals.

Ronnie Brock, the 1973 Missouri Star Farmer, and his brother Kerwin, who work in partnership, put 26 boars on test that first year. They farrow 58 sows annually and sell 50-75 registered gilts a year for breeding purposes.

Other members with a large number of boars on test that first year were Terry Vantrump with 12 and Randy Flick with 11. All totalled the chapter tested 52 boars during the first year.

Pigs were weighed off test on June 20 and July 20 of last year with sonoray data being taken by University of Missouri technicians. Boars in the testing program were officially weighed twice by area Livestock Extension Specialist Ken Anderson.

The sonoray machine produces a high frequency which is used to measure backfat and loin eye muscle, both highly heritable traits. Sonoray estimates of live animals are similar to actual measurements taken of slaughtered animals and are, therefore, helpful in selecting breeding stock.

"The results of the sonoray tests were returned about two weeks later," says Advisor Newham. "Using this information and test weights Ken and I calculated indexes for each animal."

About two months after the testing program was completed the Stet Junior Swine Breeders Association held their first sale. The results of the September sale illustrate the enthusiasm shared by breeders in the area.

Despite a rainy evening almost 200 people attended the sale with buyers biding on performance tested boars and littermate or half-sister gilts to these boars. Altogether 17 Grade A (Superior) boars averaging $229.12 each, 36 Grade A gilts averaging $165.14, and 7 Grade B (Good) gilts averaging $131.43 brought a total of slightly over $10,760 at the auction sale.

The top selling boar, consigned by Ronnie and Kerwin Brock, sold for $360. The boar had an adjusted loin eye of 5.51, an average daily gain of 1.95 pounds between 60 and 200 pounds, and an adjusted backfat thickness of .83 inches for an overall index of 207.5. The high selling gilt, consigned by Randy Flick with a backfat thickness of .95 inches, also sold for $360.

The success of the Stet FFA sonoray performance testing program speaks for itself, say participants. Ronnie Brock, for example, reports, "The tests have helped us decide which of the herd boars will provide us with the best potential for improvement."

Rex Layman, who tested three boars and sold one at the first sale for $225, stressed the importance of continuing the sonoray testing program. Looking forward to another year with this in mind Stet FFA members plan to have around 70 boars on test this spring.

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8. High school (name / address) 9. HIGH SCHOOL GRADUATION DATE (MONTH / 19 YEAR)

10. I will take the College Board Scholastic Aptitude Test (MONTH / 19 YEAR)

11. I will take the American College Test (ACT) (MONTH / 19 YEAR)

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Maintaining Tractor Loaders

(Continued from Page 28)

connected to the hydraulic system built into the tractor, follow the recommendations of the tractor manufacturer. All hydraulic fluids are not the "same." The use of an incorrect fluid can cause expensive damage.

Generally, you can hear the operation of the relief valve as a "buzz" or "whirr." Do not use the loader for an extended length of time with the relief valve operating. Doing so causes the hydraulic fluid to overheat.

Mechanical. All the pivot points should be greased regularly. Some of these pivots are heavily loaded and wear rapidly if they are not properly lubricated. The pivot points of the linkage that controls the dumping of the bucket should be oiled regularly for ease of operation.

A regular check should be made of all bolts and capscrews that attach the loader to the tractor. Loose fastenings can cause some of the parts not to carry their share of the loads imposed. This in turn, may result in overloading and failure of other parts.

Some loader-tractor combinations require tie straps between the front and rear portions of the tractor, so that the tractor can withstand the loads imposed by the loader braces. If your outfit is equipped with such tie straps, do not operate without them. To do so, can result in the loader actually pushing apart the front and rear portions of the tractor.

Ease a heavy bucket load down slowly. Sudden stopping of a heavy load after it has gained momentum can cause damage to the loader or to the tractor.

Safety Precautions. The following safe operating practices also help keep maintenance costs down.

- Operate the loader from the tractor seat only.
- Carry the load low.
- Operate at a reasonable speed. This is especially important if operating over rough ground.
- Never operate with frayed hoses or leaky hydraulic system. An unexpected bath of hot oil isn't very pleasant.
- Never stand underneath a raised loader bucket.
- Do not leave the loader bucket in a raised position.
- Before uncoupling any hydraulic connections, stop the engine, and work the control valve back and forth several times to relieve any pressure in the hydraulic system.
- If possible, avoid operating sideways on a slope. Preferably, approach the pile uphill and back downhill.

School's Out, Farming's In

This member's love for farming got him started on his way to success in his chosen agricultural career.

Phil has cut feed cost per pound of butterfat by 17 cents in four years.

UPON graduation from Beech Bluff High School in Tennessee, Phillip Blankenship was interested in attending college but at the same time wanted to start farming on a full-time basis. His love for farming prevailed and Phil, a holder of the American Farmer degree, is now a full-fledged dairy farmer.

Phil began to develop his love for the farm at an early age when he received a Jersey calf from his father. By the time he entered vocational agriculture he had raised or purchased an inventory of 11 cows, 4 heifers, and 3 calves. Today his Jersey herd numbers 34 cows, plus calves and heifers.

Phil's cows average over 8,620 pounds of milk and 430 pounds of butterfat. He has one cow with an average of 12,000 pounds of milk and 12 to 15 cows averaging over 10,000 pounds of milk. According to Phil the Jersey breed milk production average is just under 10,000 pounds.

Every year the young dairyman exhibits top herd individuals at several major shows. One of Phil's cows won the grand champion at the West Tennessee State Fair four times. Another of his high producing animals was named grand champion of the open show at the Mid-South Fair, competing against cattle from Louisiana, Missouri, Mississippi, Arkansas, Kentucky, and Tennessee. Phil also exhibits at the North American Dairy Show and has won several top placings there.

Phil was a member of the Beech Bluff Dairy Judging team coached by Advisor David Crossno which won first place in the district and West Tennessee and second in state competition. He served as vice president and treasurer of his chapter, received the Star Chapter Farmer award, and won the West Tennessee Dairy Proficiency award.

Phil, also a winner of the West Tennessee Star Farmer honor, is a member of both the Tennessee and American Jersey Cattle Clubs. He sells his milk through the American Milk Producers, Inc. at a plant which specializes in bottling Jersey milk.

"Vocational agriculture has been especially helpful to me in the area of animal disease control and prevention," says Phil. "My FFA experience in dairy judging has proved valuable to me in selecting sires and culling my herd."

To feed his cattle, Phil raises 48 acres of crops—18 acres of corn silage, 15 acres of hay, and 15 acres of corn for grain. He pays for the use of the land and machinery by helping his father and grandfather with their dairy herd and field work.

In total, Phil, his father, and grandfather maintain a milking herd of 60 cows and about the same number of replacements. They raise their own feed and grow corn, soybeans, red clover, orchard grass, wheat, and cotton on 350 acres of land.

Normally, the Blankenships raise enough feed to fulfill their livestock needs. In 1972, however, because of rainy weather they had to purchase some feed in late winter to get by until the cattle could be put on pasture.

The Blankenships maintain complete DHIA records and breed according to cow production and sire records. According to Phil they concentrate their culling system on milk production indexes and cow health records.

Their milk cow facilities feature a 70- x 90-foot, 12-stanchion milking barn and a loose-run barn that will hold over 200 head. Cows are fed a 16 percent ration as they enter the milking barn. Hay and silage is fed either in the loose-run barn or outside bunks.

Up to 23 calves can feed individually in these 4- x 6-feet nursing pens. *Staff Photos*

With Phil back on the farm, the Blankenships are planning to expand their dairy herd. "Grandfather has retired and my dad and I have taken over the entire operation. We will probably add another 10 or 15 cows with the addition of more land," explains Phil, a member of Who's Who Among American High School Students. Present plans include the purchase of another 100 acres of neighboring cropland.

But being able to farm has meant more to this dairyman than just getting a good start in his chosen career. For Phillip Blankenship it has meant the satisfaction of being an American Farmer in every sense of the word.

The Justin Hall Of Fame

In 1874, Joseph Farwell Glidden of DeKalb, Illinois, was issued a patent for "barbed fence wire," an invention used by farmers to protect their crops and homesteads from the cattle and buffalo that roamed the plains, and the Old West was never the same. All three sticks of barbed wire shown below were patented five years later, in 1879—the same year the Justin Company was founded.

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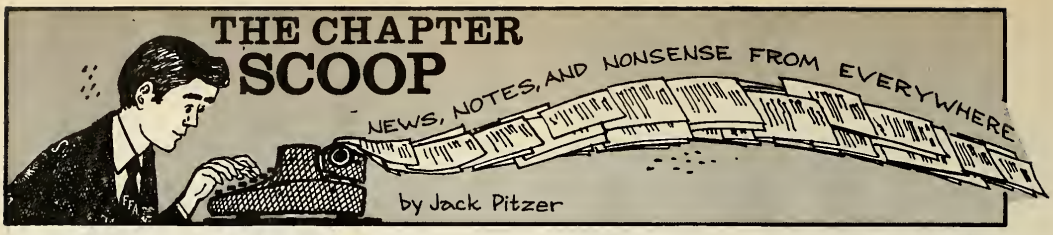


Every student of *Bowling Green,* Ohio, High who went hunting received a hunting safety pamphlet from FFA.

N-N-N

Jefferson, Georgia, FFA'er **Mike Merk** had the first Duroc gilt to farrow in 1974. She had 10 pigs.

N-N-N

Clay Center, Kansas, helped families who had been hit by tornadoes.

N-N-N

After Thanksgiving an *Anderson,* California, Chapter committee cut 300 trees, measured, tagged them, and made wood stands. Netted $750 from sales.

N-N-N

Danny Kessel placed first; **Thurman Casto,** second; and **David Bourgouis,** third in the West Virginia Entomology Contest. They're from *Ripley.*

N-N-N

Faribault, Minnesota, has annual fall Parents' Night for Greenhand and Chapter Farmer ceremonies.

N-N-N

Greenhands of *Geddes,* South Dakota, sold pheasant skins and purchased new George Washington and Thomas Jefferson pictures for vo-ag classroom.

N-N-N

Housatonic Valley, Connecticut, members compete in preparing Christmas decorations to sell. Honors to: **David Allen** tied 333 wreaths; **Gary Ocain** cut 585 pounds of greens; **Mark Gomez** made 2,400 bunches; **Mark Barry** decorated 130 wreaths.

N-N-N

Mitchell Colvin, a *Riverdale,* California, FFA'er is saving gas by riding his horse to school.

N-N-N

And so is **Kirt Wingate** of *Trenton,* Missouri, Chapter.

N-N-N

State fair exhibit made by *Loudoun County,* Virginia, FFA ranked first.

N-N-N

When *Hull-Daisetta,* Texas, Chapter was named Gold Emblem, local business firms saluted the accomplishment on outdoor marquee.

N-N-N

Outstanding Service Award of *Elgin,* Iowa, FFA went to school custodian.

Members of *Gervais,* Oregon, Chapter plan to wear their official FFA jackets once a week all year.

N-N-N

Sussex Vo-Tech Center members in New Jersey, sell bird houses and feeders.

N-N-N

Here's a new one! **Dave Hook** won grapefruit eating contest sponsored by *Wessington Springs,* South Dakota. Ate seven peeled fruit in 15 minutes.

N-N-N

Mike Shows reports that the *Winnfield,* Louisiana, food drive for the needy this year was most successful ever.

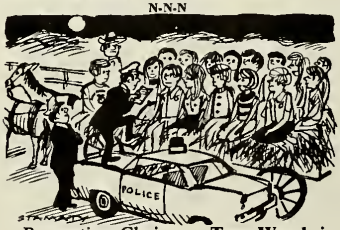
N-N-N

An old fashioned tug-o-war complete with mud puddle as the center line was a feature of Greenhand initiation of *Westminster,* California, Chapter.

N-N-N

Wells, Minnesota, formed an energy crisis committee. Purpose: to give tips on saving energy to local citizens.

N-N-N



Recreation Chairman **Tom Wood,** in *Hermiston,* Oregon, says their hayride was a big success. Even though the local police stopped them for not having sideboards.

N-N-N

The community of *Mineral Point,* Wisconsin, appreciated the FFA constructed skating rink and warming house.

N-N-N

Since the courtyard they were landscaping was filled with snow, *Parker,* South Dakota, members decorated a Christmas tree there.

N-N-N

Loans of $50 are provided by *Smithsburg,* Maryland, FFA to its members.

N-N-N

Assistant officers of *Aurelia,* Iowa, opened and closed December meeting.

N-N-N

There's a bulletin board in *Blair,* Nebraska, High with current FFA events.

N-N-N

Three *Kossuth,* Mississippi, teams won state contests: dairy cattle judging, land judging, parliamentary law.

N-N-N

FFA presented colors and led the Pledge at a university sponsored career day at *Pojoaque,* New Mexico.

Clear Creek, Texas, Chapter just bought a registered Hereford bull to use with their crossbred cow herd. The cow-calf operation is major fund raiser.

N-N-N

To save fuel, *Sheldon,* Iowa, members are lowering ceiling and insulating hog house on school farm.

N-N-N

Members of *Lee Academy* FFA live in twelve different towns in Maine.

N-N-N

Debbie Kashner, reporter for *Eagle Valley,* Colorado, writes, "We suffered quite a loss when our shop building and ag classroom burned down."

N-N-N

Tim Cohick of *Harry Gates,* Canton, Pennsylvania, Chapter got beat in the Christmas party balloon toss by student teacher Ben Newcomer.

N-N-N

I hear there is real rivalry between *Sandpoint* and *Kendrick,* Idaho, Chapters at contests and for area officer.

N-N-N

Two state officers were invited to *North Side,* Tennessee, Chapter's party.

N-N-N

Every Monday from 6 to 10 p.m., *North Kingstown,* Rhode Island, members get to go skiing for discount rates at a nearby ski area.

N-N-N

Kenmare, North Dakota, Chapter cooperated with other adult civic groups in serving free coffee and donuts to Christmas shoppers. One FFA'er was Santa's helper.

N-N-N

Steve Randall of *Greenon,* Ohio, Chapter spent winter vacation with the *Bartow,* Florida, Chapter.

N-N-N

Ten *Ionia,* Michigan, seniors were sent by their chapter to National Tractor Pulling Contest in Indiana.

N-N-N

Don and **Dave Holmes, Bob Meyer, Steve Oradnick,** and **Kim Larson** won a bred Charolais heifer for the Canby Chapter at an Oregon Field Day.

N-N-N

Afton, Oklahoma, Chapter bought FFA caps. Very useful to get publicity at fairs, judging events, and field trips.

N-N-N

The FFA Supply Service will be featuring an FFA cap next year in its catalog. Look for it.

N-N-N

If your state isn't mentioned on this page, then we did not hear from any chapter there. Get your chapter name in print by reporting interesting news, helpful notes, or just nonsense.

The Lee Rider: Bobby Berger.

"I guess bronc ridin's my favorite. Some of these old broncs been around for years. And you admire 'em. They just never quit.

"You learn their patterns. So while I'm limberin' up and gettin' ready, I'm thinkin' about that one horse and programming myself to ride according to his pattern."

"Darann and I like horses. Our friends think we got us a ranch in Oklahoma. I tell 'em we got this 80 by 120 foot spread in Norman, and the only livestock we own is a poodle dog."

Lee

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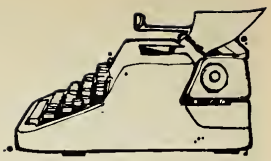
Earmarks of a Good Letter



by Jack Pitzer

ESSENTIALS of good business letter writing are not new, different, or recently discovered. But judging from the letters received at the National FFA Center (and from what agribusinessmen tell us), FFA'ers aren't applying them. You would be further amazed at how many ways 3-ring notebook paper can be folded.

Use unruled paper of some kind—usually 8½ x 11 inches—and a white envelope. Make the letter clean and neat whether it's typewritten or with ink (not pencil). If it's longer than one page, use a second sheet of paper. If it's short, center the letter on the page.

Above all, be sure the receiver can read your letter.

Folding can reflect your letter writing attitude, too. For letters going into the typical size envelope you have at home (about 3½ x 6½ inches), use the steps in the diagram.

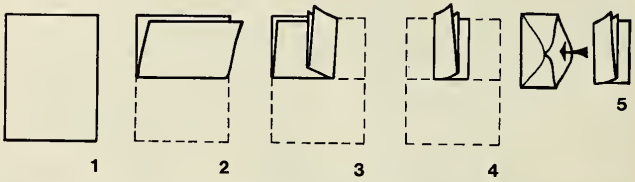
The letter format is traditional. A heading of the date and particularly your complete address is a key point very often overlooked on letters from chapters. It can be a problem if you don't give a return address for sending a reply.

The inside address (of the person to whom you are sending the letter) and the salutation (Dear Mr. Gray: or Dear Sir:) are usually correctly used by FFA letter writers.

Now write your letter or ask your question. Be brief but clear. Again, be certain it can be read. After you've finished, put on the complimentary close (such as, Sincerely,) and write your signature legibly.

Don't forget to address the envelope legibly and use complete addresses including zip code.

The earmarks of a good letter are: Say it right, write it right, fold it right, send it right.



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A picnic outing has become a successful alternative for the Earl C. Baity FFA.

Banquets Can Be ORIGINAL

(Continued from Page 20)

so it does for publications. Celebrating their 40th year, the Mexico, New York, Chapter used the occasion to prepare a booklet containing the history of their chapter. The 28-page publication —includes a blue and gold cover and features pictures of their past state officers, American Farmers, and memorable activities, plus a chapter story and excerpts from chapter meetings— was handed out at the banquet.

Special Events

The entertainment for a banquet probably offers the biggest possibility for varying the banquet program from year to year than any other area.

In preparation for their parent-member banquet the Walkersville, Maryland, Chapter takes pictures of the vocational agriculture classes, FFA members, and chapter activities throughout the year. Then at the banquet the parents, guests, and even the members enjoy recalling the year's activities.

Marking their 25th Silver Anniversary, Pasco, Washington, members held their banquet during FFA WEEK to emphasize their accomplishments.

On alternate years the Earl C. Baity Chapter of Pylesville, Maryland, holds what they call an "outing." The outing starts with hayride-type tours of the department's crop land with FFA members serving as guides and speakers. The tours end at the school pond where a picnic supper is provided, and games are held between the ag classes. The adults are then invited to tour the farm shop, ag classrooms, the greenhouse, and project displays.

Like most things, the success of a banquet program depends on a combination of things. Therefore, the meal, decoration, and special event committees will need to cooperate with the other committees—particularly the invitations and the public relations—to get the most out of a "new idea."

Most FFA members and advisors commonly accept the main purposes of an FFA banquet as: 1) To honor parents of FFA members; 2) To recognize chapter members for special achievements; 3) To honor persons in the community for their contributions; 4) To summarize the activities of the year; and 5) To hear an outstanding speaker. But while your doing it, put something unique on the program and you may get more than the usual complimentary remarks about your next FFA banquet.

"I wonder if the hands are ready for dinner."

Plan ahead! Order your banquet supplies—disposable FFA plates and cups, printed programs, and napkins—from the National FFA Supply Service about two months ahead of the actual banquet date. This will avoid the rush as well as give your banquet committees more time for making final preparations.

hunting hints

Here's something everyone who is just starting to use a pump-action shotgun should remember: Never hold the trigger down while working the action between shots. This could result in the second shell being fired unintentionally the instant the bolt is closed. Even though most newer pumps are equipped with a safety sear that prevents this, stay on the safe side and always release the trigger between shots.

H. G. TAPPLY, Editor — Field & Stream

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Would You Know What to Do?

Compiled from National Safety Council Materials by Jack Pitzer

YOU'RE behind the wheel of your car, driving at a brisk clip on the open highway. Suddenly, a car from the opposite traffic lane swerves directly into your lane and speeds toward you on a collision course.

Would you know what to do? Or would you panic? Would you do the wrong thing, or would you choose the right defensive action to put the odds in your favor?

Emergency situations are a threat anytime you're at the wheel of your car. A panic reaction could be disastrous. Your very survival may depend on two things: your ability to stay calm, and your knowledge of the best defensive action to take.

Usually you can't "practice" an emergency driving situation. So the next best thing is to develop the skill and know-how beforehand—in your mind. You must visualize in advance emergencies that might confront you, and plan mentally the defensive action you will take. You can do this by studying the advice of experts. Any of the following emergencies could happen to you—maybe today. Fix in your mind—*now*—what you should do if any of them happened to you.

Your Brakes Fail

You step on the brake—and the pedal slaps uselessly on the floor. It's a terrifying experience!

If there was any resistance, pump the pedal. You may be able to work up enough pressure to help some.

If there is no pressure and the way is clear ahead, coast in drive gear and use the parking brake. If you need to slow faster, shift into a lower forward gear and let the engine help.

On a hill or mountain grade, you're in trouble. Look for something to sideswipe—roadside brush, a snowbank, a guardrail, even parked cars. (Dented sheet metal can be repaired.)

Use your horn or lights to warn other drivers and pedestrians that you are out of control.

You Go into A Skid

Abrupt turns, sudden lane changes or hard braking can throw you into a dangerous skid, especially on wet icy roads.

If the rear end of your car starts to skid, take your foot off the gas at once.

Your first instinct may be to turn hard away from the direction of the skid. Don't! That will *really* spin you into a crash.

Instead, turn your wheels in the same direction the rear of the car is skidding. But be careful about it—don't oversteer. You'll be able to "feel" when the car regains rolling traction. Then straighten the wheels.

By all means, *never* hit the brakes during a side skid correction. For the fastest stop with the least chance of causing a side skid, pump your brakes with a hard, *rapid* jabbing and releasing of the brakes.

Your Accelerator Sticks

You let up on the gas pedal and nothing happens. Keep cool—this is one of the easiest of driving emergencies to handle.

If you're on the open highway and there's plenty of room ahead, try to pull the pedal up with the toe of your shoe or have a front seat passenger do it. Don't reach down yourself and take your attention from the road. But on some cars there is no connection between the pedal and throttle linkage; check the type you have. If there isn't time, simply turn off the ignition and brake to a stop. But remember—with power brakes and steering, turning off the engine will make steering and braking hard work. Be ready for the stiffness and bear down.

If a quick stop or maneuvering is necessary, you *can* leave the power on and shift into neutral or depress the clutch. But get stopped in a hurry and shut off the engine at once—a motor racing without load can tear itself to pieces quickly.

You Have a Blowout

Keep a firm and steady grip on the steering wheel——and don't oversteer to correct the swerve or pull. If a front tires goes, there will be a strong pull toward the side with the blowout. A rear blowout tends to cause weaving of the rear end.

Above all, don't slam on the brakes! Brake smoothly—but easy does it. Sudden braking may throw you into a spin or out of control.

Get onto the shoulder and limp along until you find a place level enough to change the tire safely. Day or night, set out flares or other warning device and turn on flashers.

Your Headlights Go Out

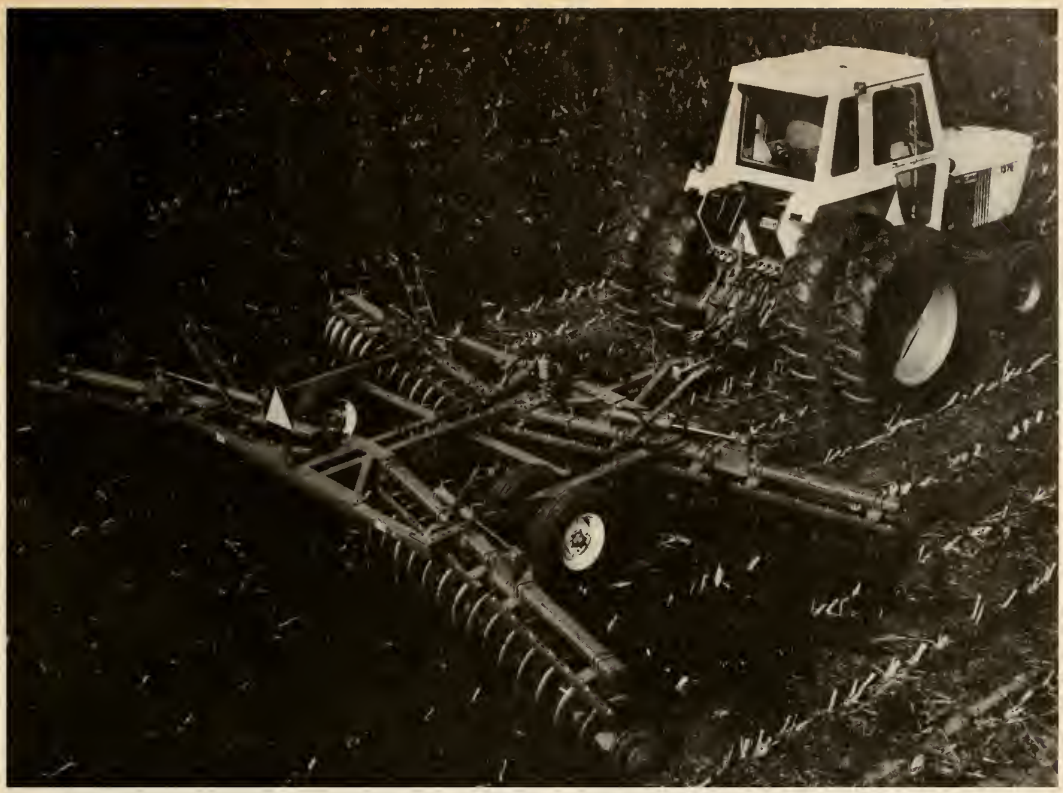
There's only one thing to do if your headlights go out and you're suddenly plunged into darkness—hold a straight steering course and brake as hard as you can without throwing yourself into

(Continued on Page 44)

Safety Course

The National Safety Council has developed an eight-hour Defensive Driving Course to teach all licensed drivers about accident avoidance techniques. It could be used by FFA chapters as an addition to a positive chapter safety effort.

A chapter might take the official course themselves, then train a team to conduct it for parents, other students, and civic clubs in the community. The National FFA Chapter Safety Program is especially organized to recognize and honor successful and effective chapter safety efforts.



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DrivingEmergencies:

(Continued from Page 42)

a skid. Then ease onto the shoulder as far from traffic lane as you can get. The idea is to pull your speed down quickly before a slight steering error takes you off the road.

Once stopped, set out flares or use a flashlight to warn oncoming traffic. Use four-way flasher if they are operable.

If everything is dead—radio, blower, interior lights—the problem probably is the battery cables. Check the terminals at both ends.

If only the headlamps are out, the circuit breaker has opened. Since it is heat actuated, it should open and close, giving you intermittent light to help you to safety.

Your Car Catches Fire

Most car fires are caused by a short circuit in the electrical system.

It's almost impossible to disconnect battery terminals without tools. So don't waste time. Get the jack handle from the trunk and rip loose any burning wires. They are a lot less expensive to replace than a burned-out car. If you don't carry a fire extinguisher, try to smother burning wires with a large article of clothing. Don't grab burning wires with your bare hands; use a heavy cloth or article of clothing because an electrical burn can be serious (while autos use only 12 volts, amperage or current can be relatively high in a malfunction).

If the fire is beyond your control, get away from the car before the gas tank explodes. Try to flag down a trucker—they usually carry efficient extinguishers.

You Must Stop on a Highway

On an expressway with paved shoulders, signal and pull off at near traffic speed, then slow down. Where the shoulder is unpaved, signal a right turn and slow down to a safe speed before turning off.

Leave low-beam headlights on in dusk, darkness or bad weather, turn on interior lights and four-way flashers if you have them.

If you must stop close to a traffic lane, on a curve, over a hill or in any risky location, get everyone out of the car and well away from traffic. By all means, don't obscure taillights at night by standing or working behind the car.

Day or night, place a flare or other warning device just behind the car and another at least 300 feet back (that's about 120 paces).

Raise the hood and tie a white handkerchief to the antenna or left door handle as a signal if you need help.

Your Hood Flies Up

Brake smoothly and ease onto the shoulder. You'll have to depend on the view from your left window for steering reference. Or on some cars you may be able to peek through the gap under the hinge edge of the hood.

Make it a habit to check whether the attendant securely latched the hood after a service station stop.

You Are on a Collision Course

Suddenly your blood chills! Another car is speeding toward you in your lane—a head-on crash looms!

Is he drunk, asleep, ill, inattentive—no matter. You'll need to keep all your wits about you to avoid the worst of all highway accidents.

Brake hard—every mile you take off your speed reduces the impact force. Head for the right shoulder and give him the entire road. If there's time, lean on the horn and flash your lights.

If he continues toward you, take the ditch or any open ground free of solid obstructions to the right. Remember that any alternative, even a roll-over, gives you a better chance than a head-on collision.

Whatever you do, don't try to outguess him and swerve to the left around him. He may recover at the last instant and instinctively veer back into his own lane—to hit you head-on.

Your Car Plunges into Water

Submersion is about the most unpredictable of all auto accidents, both in the way the car will perform and the way people will act. Water causes more unreasoning panic than any other emergency. A few tips have grown out of actual tests:

A car with windows and doors closed will float from 3 to 10 minutes. The best escape route is through a window. It is difficult to open a door against water pressure, but a window can be rolled down easily.

Power windows may short out, so try to open them immediately. Tempered glass in the side and rear windows of today's cars can be broken only with a heavy, hard object.

A front-engine car will sink nose first, and some air may be pushed to the rear near the roof. When pressure inside and out is equalized, it is easier to open a door. Remember that 3 to 5 minutes is a lot of time in an emergency. If your seat belts are fastened so you won't be knocked out—and if you keep your head—there's usually time to escape.

Point to Remember

Safe driving requires the adoption of an attitude toward operating a vehicle known as "defensive driving."

When you practice defensive driving you lessen the chances of being involved in a motor vehicle accident.

This is the second in a series of articles about defensive driving and driver attitude scheduled to appear in upcoming issues of the magazine.

Project Gets An Audience

Mr. John Thieman, left, of Allied, confers with Advisor Sidney Jordan about the joint fertilizer project.

A FERTILIZER demonstration project planned by New Orleans, Louisiana, vo-ag students received national recognition when it was selected for display at the recent annual meeting of the National Fertilizer Solutions Association. Wheat, barley, and corn grown by the FFA members were included in a display by Allied Chemical Corporation at the national meeting.

Vo-ag students and FFA members from Booker T. Washington High School in New Orleans, grew the plants in pots to show the favorable effects of a liquid polyphosphate fertilizer on the three crops. They compared the plants to others grown with dry orthophosphate fertilizers. Typical calcareous soils were taken from western Nebraska under the supervision of Mr. William Glover, the firm's field promotion manager, and flown to the high school.

Pots were planted on October 10, November 2, and November 21 at the Booker T. Washington vo-ag department to illustrate plant growth at three different development stages. FFA Advisor Sidney Jordan, vo-ag department head, and his assistant Mr. Floyd Jenkins supervised the experiments.

Advisor Jordan reports, "The school was both proud and delighted to work with industry to help its students gain practical experience in agriculture."

Booker T. Washington High School has an enrollment of 2,000 students, 121 of whom are currently studying vocational agriculture. Since its establishment in 1942, the school has averaged over 100 vo-ag graduates annually. Graduates have gone on to become prominent landscape architects, horticulturists, florists, and staff members at agricultural universities.

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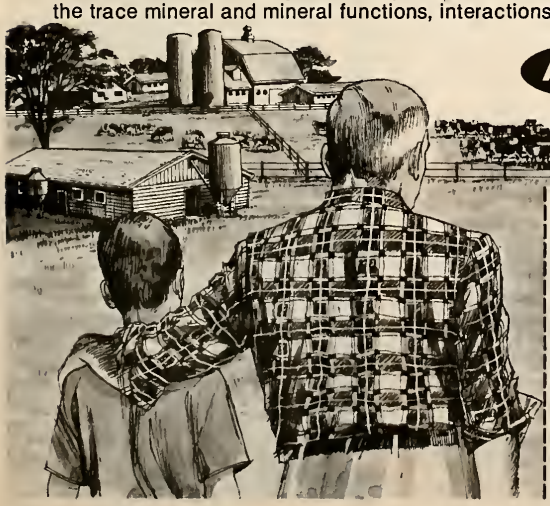

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Photo Contest Winners Named

WINNING pictures shown here definitely reveal that there is photographic talent in the FFA. And as *The National FUTURE FARMER's* contest theme states, they illustrate a variety of activities done by FFA members for fun and relaxation.

We hope you like seeing what pictures won the top five placings (first, $25.00; second, $20.00; third, $15.00; fourth, $10.00; fifth, $5.00) as much as we enjoyed judging the many exciting pictures sent in by FFA members. They can give you an idea of what kind of photographs to include with future articles about your chapter or individual members.

First Place

The winning picture of Nancy Row and Robert Rainer passing a lifesaver at the Salisbury, Missouri, FFA Chapter's barnwarming was taken by Roy Dickerson.

Second Place

Mike Wilson, St. Helens, Oregon, Chapter, took this shot of Becky Barnes taking Portland children on a tour of the Pacific International Livestock Exposition.

Third Place

Mike Baker swings low at the ball shown above his head at a district leadership camp. Michael Gingerich, Williamsburg Hawkeye, Iowa, took the photo.

Fifth Place

Members of the Durham California, Chapter went backpacking in Lassen National Park. Gary Lehrman took this scenic view.

Fourth Place

Opening tip-off of the intramural game between the Portage, Wisconsin, FFA (shirts) and Warrior News was captured by Ken Englebrecht.

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FFA in Action

COMMUNITY AGRICULTURE

Gater Growers

Fifteen members of the Sulphur, Louisiana, FFA Chapter went on an interesting and unusual field trip to Rockefeller Wildlife Refuge to witness the second alligator hide auction.

The auction was carried on by sealed bids from five buyers. The average price was between $12.00 and $13.00 per foot of alligator skin.

Louisiana's second alligator season was from September 10 through 28, 1973. Alligator hunters had to obtain a license from the Rockefeller Refuge headquarters. Hunters were allotted an alligator tag based on the acreage and type of marsh land they hunt on.

The tags are clamped in the tail and are not removed until reaching the tannery. No untagged hides may be sold. There were 2,908 alligator hides brought in by about 50 licensed alligator hunters. The sale grossed approximately $217,000.

After officials checked the hides, they were inspected by buyers. Most of the hides were shipped to France and Japan for processing and manufacturing into saleable products. Ladies handbags, boots, wallets, belts, and shoes are the most popular products made from alligator hides.

In one area of the refuge, experiments were being conducted on baby alligators. One pen of gators were fed catfish pellets, growing 11 inches in one year. Another pen of gators were fed fish meal, growing 18 inches in one year. The third pen of gators were fed nutria meat and grew 36 inches in one year. The result may be a new industry for Louisiana; using the formerly wasted nutria meat to "grow" alligators for hide production. Several area staffers of the Louisiana Wildlife and Fisheries Commission accompanied the tour and cooperated in answering questions.

Beef Lyceum

The Amboy-Good Thunder, Minnesota, Chapter, in conjunction with local businessmen, organized a meeting to convey to the public both the idea and the scope of a free enterprise system in the society and what part this plays in our lives.

The topic chosen was beef production.

Chapter Advisor Jerry Rollings opened the presentation with a welcome and a preview of the program. He then introduced Mr. Gary Armon, of the

(Continued on Page 52)

FFA WEEK

By Proclamation

Proclamations honoring the work of vo-ag and FFA and celebrating National FFA WEEK were issued by many governors across the nation in February. Mayors, too, signed local proclamations recognizing FFA.

Illinois president, Gene Schwarm, left, and reporter,Tom Scheider, at right, join Governor Dan Walker at his desk for the proclamation signing.

Nebraska officers on hand for their governor's proclamation are, left, Kenneth Neff, Don Swanson, Richard Perry, Brian Schellpeper, Maynard Schriner, Jerry Kuenning, John McKenzie,JoeStrickland,JoeMcAuliffe.

The ten Texas Association officers and State Advisor J. A. Marshall in their governor's office to witness his signing the National FFA WEEK proclamation.

Calling on The Governor

A delegation representing the Warren County Chapter presented Tennessee Governor Winfield Dunn a plaque as part of a local and state observance of National FFA WEEK.

Officers of the chapter met with Governor Dunn and presented him a plaque in appreciation of his support of the FFA's Building Our American Communities program in Tennessee.

The local chapter was the first state recipient of the governor's BOAC plaque.

Chapter President Bobby Love headed the delegation meeting with the governor. Others meeting with the governor were J. B. Moore, vice president; Steve Dickerson, secretary; Ira Cunningham, treasurer; Eddie Clendenon, reporter; Eddie Patterson, sentinel; Russell Watson, chapter advisor; and Cathy Bouldin, chapter sweetheart.

Immediately following the meeting with Governor Dunn the group toured the Children's Hospital.

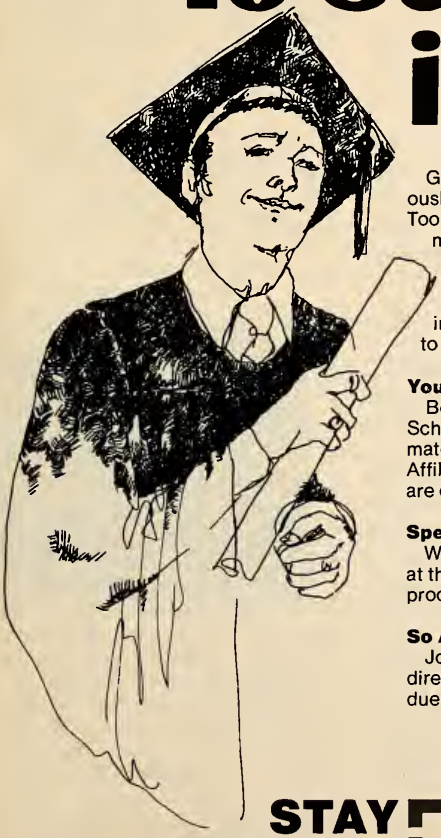
Warren County FFA Chapter helps to support the hospital by cosponsoring the annual paper sale with the McMinnville Jaycees.

The Warren County, Tennessee, Chapter honored Governor Dunn for the support he has given vo-ag and the FFA.

Service Free

"Taking A Helping Hand" was an offer of free repair service by FFA members to school classroom equipment. Members Eddie Blizzard and Joe Perez, center, explain how the program works to members of the faculty at Scottsboro, Alabama.

Attention Seniors... Here's Your Chance To Stay Involved in the FFA!



Graduation is almost here—a time when you're thinking pretty seriously about the future, and about all the good things you'll leave behind. Too often, high school graduation has signalled an end to active involvement in the FFA for far too many Seniors.

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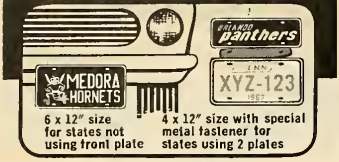

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FAVORITE manufacturing

Department G, RD 1, New Holland, Pa. 17557

FFA in Action

(Continued from Page 50)

social studies department, who explained the free enterprise system and supply and demand.

He was followed by Mr. Bill Noy, a successful local cattle producer, who took an imaginary calf through his feedlot explaining both costs and profits open to him.

Then came the next person in the chain from producer to table, the processor. Mr. Dennis DeWitt, public relations man for Wilson and Company, of Austin, Minnesota, told about problems in the handling, dressing, and shipping of a carcass.

Mr. Burk Bartell, owner and manager of several area grocery stores, told how he makes the product both attractive and profitable to the consumer.

Finally, Ms. Susan Peterson, a home economics teacher, discussed certain points the consumer should look for in the products from the grocer's shelf. *(Jerry Rollings, Advisor)*

Unusual Classroom

A new phase of the vo-ag program at Peninsula High School at Gig Harbor, Washington, would really be unusual in many of the other departments around the nation.

It features an instructional area on marine agriculture. The chapter is located 15 miles north of Tacoma on Puget Sound.

Advisor Bill Roberts contacted the close-by Minter Creek Fish Hatchery about the possibility of developing a class in marine culture—mainly salmon hatchery operation.

Students started off this class by getting into chest waders and into the holding tank to separate male and female salmon. Then they helped take eggs and put them into rearing trays.

Next they started doing some of the routine hatchery operations like feeding the fry, cleaning screens and tanks, taking death tolls, and picking out dead eggs.

The class is following the salmon life cycle from egg taking to release.

Advisor Roberts is investigating the possibility of expanding educational opportunities at an oyster raising company and commercial fishing operations.

Robert Richards and Laurie Tweedie, from the left, get actual experience working in salmon hatchery operation.

MEETING IDEAS

Busy Business Session

At the January meeting of the Housatonic Valley, Connecticut, FFA Chapter a motion was made to sell one of the two FFA tractors. After considerable discussion a motion to refer the tractor sale to a committee of five appointed by the president was made, seconded, and carried.

The committee met to investigate the sale and at the February meeting recommended selling the tractor and its associated equipment to the person submitting the highest sealed bid. After a lengthy and heated discussion the motion passed. Bids were submitted by three members and Kevin Pollard, the

SHOWS AND FAIRS

Still Trucking

National Hog Farmer Photo

Doug Pichner, Owatonna, Minnesota, used the 1930 Model A Ford truck to haul his entry to 25th State Fair FFA Livestock Show. His father had used the truck for the 1948 fair. Doug, left, is getting help from State FFA President Greg Schley.

Fine Wool

Boerne, Texas, Future Farmer Jimmy Phillip is with his champion fine wool crossbred lamb which sold for $1,250 at San Antonio Livestock Expo.

highest bidder, is the new owner of this tractor, a bucket loader, snow plow, two bottom plow, and mower.

A committee report was given by the FFA WEEK Committee. The committee had arranged to have a billboard put up and to distribute litterbags through stores to their customers. Also 1,500 envelope stuffers were given to local businessmen to send out with letters to customers. One hundred bumper stickers were given out to members and FFA pens were given to high school teachers.

The Safety Committee passed out survey sheets to get information on farm accidents so they could decide which area of safety needs the most attention. (*Kevin Pollard, Reporter*)

SERVICE

Dimes from Hay Stack

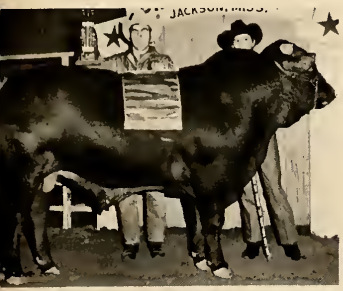
The Eureka, Kansas, Chapter held their annual "hay drive" for the March of Dimes.

The members go in groups to farms in the area and ask farmers and ranchers to donate hay. Those who can't spare hay give money. The hay is sold at the Eureka Auction Sale with all proceeds going to the March of Dimes.

Twenty-two years ago the chapter's first drive collected $7.00. This year the chapter collected 475 bales of hay which sold for $677.60 and also collected $43.00 cash. That is a total of $720.60 for the year and the grand total of $4,358.07 donated to the March of Dimes over the years.

This type of fund-raising is the only one of its kind reported to the National Foundation. (*Letty Jo Hammerle, Reporter*)

Junior Winner



Danny Ashe, Coldwater, Mississippi, is partially hidden by his Santa Gertrudis bull which took champion over other breeds at the Dixie National Livestock Junior Show. His advisor, Billy Smith, displays trophies.

Showing Champion

Buddy Tufts, right, of Hillsboro, Texas, took grand champion showman of entire junior show at this year's National Western Stock Show in Denver.

NATION'S AGRICULTURE

Corn Growing Champions

Kenny Little, a member of the Enon, Louisiana, FFA produced the top yield in Funk's-G 304 Bushel Challenge corn growing contest with an average of 297.2 bushels per acre.

Each year hundreds of members throughout the nation try to beat the former world record corn yield of 304.38 bushels.

Kenny planted his entry April 28 in 36-inch rows. He preplanted 120 pounds of nitrogen, 360 pounds of phosphorus, and 300 pounds of potash per acre. He sidedressed an additional 429 pounds of nitrogen and irrigated the corn five times. Harvesting was

(Continued on Next Page)

Kenny Little champion corn grower, with his parents and Advisor Wilson.

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FFA in Action

(Continued from Page 53)

done October 24. The plant population was 28,000 with a 13.5 percent moisture.

Kenny is not the only champion corn grower in the family. His father Hubert was named as regional winner in another corn growing contest sponsored by Funk's. Mr. Little's yield was 271.9 bushels. His yield was runner-up to Orville Montri, Michigan, who harvested 306.6 bushels per acre—a new world yield record.

JUDGING CONTESTS

Parts for Ag Mechanics

The instructional areas and subject matter units for the 1974 FFA Agricultural Mechanics Contest have been announced. Chapters can prepare their teams for any local, area, or state competition with an objective of reaching the national meet in Kansas City.

One instructional area is electric power and processing with subject areas of wiring, motors, and controls.

A second instructional area is structures and environment. Subject matter areas are selecting and using fasteners and building materials (roofing, framing, siding, and insulation), and kinds and types of agricultural buildings.

The third main area is agricultural mechanics skills with subject matter topics of arc welding and fencing.

Complete details of this contest is available in Section 10 (National Contests) of the Chapter Guide to FFA Activities.

Also chapters should expect to receive complete details about a National FFA Horticulture Contest. The organization plans to have such an event in October 1974 along with the dairy cattle, poultry, meats, agricultural mechanics, milk quality and dairy foods, and livestock contests.

Chase at the Top

Top FFA livestock judging team at the National Western Stock Show was Chase County FFA, Imperial, Nebraska. From left: Kevin Large; Chuck Muller, KOA Radio, giving award; Brent Marvin; Myron Kunnemann; Dale Grossbach.

SUPPORTERS

FFA Foundation Expands

Dennis Sargent, 1971-72 National FFA Secretary and currently president of the student body at Ohio State University, has accepted a position as assistant executive director of the National FFA Foundation Sponsoring Committee. This announcement was made by the Executive Director of the FFA Foundation Sponsoring Committee Donald McDowell.

Although his offices will be with Mr. McDowell in Madison, Wisconsin, Dennis will spend his first two months on the job as director of the FFA Summer Conference program in Washington, D.C.

In his new position Dennis will assist in expanding Foundation contacts with sponsors of FFA award programs.

Calendar of Events

June 3-6—Work Experience Abroad Orientation Conference
July 28-31—Board of Directors and National Officers Meeting, Olde Colony, Alexandria, Virginia
October 15-18—National FFA Convention, Kansas City, Missouri

National FFA Conferences

Washington, D. C.—Alexandria, Virginia
June 10-15, June 17-22, June 24-29, July 8-13, July 15-20—Chapter Representatives
July 21-27—State Presidents

Regional State Officer Conferences

June 23-25—Montana
June 24-26—Louisville, Kentucky
July 1-3—Kansas City, Missouri
July 1-3—Boise, Idaho
July 8-12—Longbeach, Mississippi
July 11-14—Glenwood Springs, Colorado
July 17-22—Idaho
July 31-August 2—Covington, Georgia
August 5-7—Connecticut

State FFA Conventions

May 1-3—California
May 1-3—Tennessee
May 2-4—New York
May 9-11—New Hampshire
May 10-11—Connecticut
May 10-11—Puerto Rico
May 16-17/20-21—Vermont
May 29-30—Kansas
May 29-30—Mississippi
May 29-31—Arkansas
June 2-4—New Mexico
June 3-7—North Dakota
June 4-6—Alabama
June 4-7—Louisiana
June 5-7—Kentucky
June 5-7—South Carolina
June 9-11—Colorado
June 9-12—Nevada
June 10-12—Wisconsin
June 10-13—Washington
June 10-14—Florida
June 11-14—Illinois
June 12-14—North Carolina
June 17-20—Pennsylvania
June 17-20—Virginia
June 19-20—Indiana
June 24-26—New Jersey
June 25-26—Maine
June 25-26—Maryland

State conventions held later will appear in future issues.

A Wildlife Refuge On the Prairie

(Continued from Page 14)

was willed to the University of North Dakota through the Sofie Haugen estate. Later with the cooperation of District Supervisor George Sanderson of the Soil Conservation Service (SCS) the chapter organized the refuge project and began hauling junk out of the old gravel pit.

The Central Valley Chapter then obtained about 200 trees through the Hillsboro SCS District office and planted them so wildlife could eventually feed upon them. Current SCS Supervisor John Knecht reports, "A state senator thought so much of the project that he donated funds for trees." Trees planted by the members included wild apple, buffalo berry, Russian olive, dogwood, spruce, pine, cedar, and plum.

Continuing to develop the reserve the Central Valley members seeded sunflowers and canary grass for wildlife cover. The chapter also purchased and released pheasants in the refuge and put up "No Hunting" signs. More recently they have been building and setting out mallard nests along the banks of the water areas.

Game birds, waterfowl, and small animals have found the refuge to be a suitable habitat. The chapter, therefore, is making periodic wildlife population counts with the help of the SCS district office. Through the use of funds offered by the local Kiwanis the FFA chapter is planning to dig out the water area of the gravel pit so fish can live through the winter in the refuge.

"In addition to serving as a wildlife refuge the area serves as an outdoor classroom," says Vocational Agriculture Instructor Lyle Rose. "Classes come out to the refuge to study wildlife habitats and to identify brush plants, grasses, and trees."

Symbolic to the lasting effect of the wildlife reserve the Central Valley FFA Chapter received a national Bronze Emblem award in the Building Our American Communities program which recognizes long-term rural development projects. The award is particularly fitting as the chapter continues to improve its natural resource area with ideas obtained at conservation meetings and outdoor recreation classes.

A sign along Highway 81 testifies to passersby the significance of the refuge on the prairie environment.

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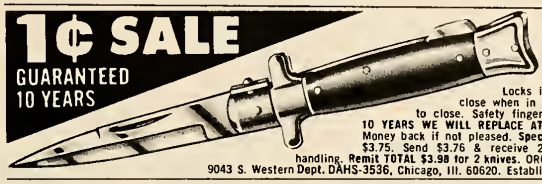

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Friend: *"Have you tried mouthwash?"*

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Tooele, Utah

The twins were to be christened. *"What names?"* asked the clergyman.

"Steak and Kidney," said father.

"No, no," cried the mother, *"it's Kate and Sidney."*

Marcia Johnson
Edgewood, Iowa

Linda: *"I wish I had enough money to buy a thousand cars."*

Henry: *"You want a thousand cars?"*

Linda: *"No. I just want the money."*

Leroy Dennis
Garden City, Louisiana

Little Susie: *"Is that a real diamond?"*

Little Marge: *"If it isn't I have been cheated out of 29 cents."*

Christy Allan
Kersey, Colorado

Teacher: *"Tom, if you had five candy bars and I asked for two, how many would you have left?"*

Tom: *"Five."*

Timothy Thompson
Glasgow, Kentucky

I'm—I'm just like any other teacher. I—I don't like to repeat things time, and time, and time, and time again.

Dave Frame
Chelsea, Michigan

First Hunter: *"It's getting awfully late and my family will be worried. And we haven't hit a thing yet."*

Second Hunter: *"Let's miss two more and then go home."*

Doug Krohn
Jordan, Minnesota

Sis: *"What's harder than a diamond?"*

Brother: *"Paying for it."*

Kevin Knutson
Beldenville, Wisconsin

Tom: *"What would you do if you broke your arm in two places?"*

Tim: *"I wouldn't go to those two places anymore."*

Greg Corr
Miller, South Dakota

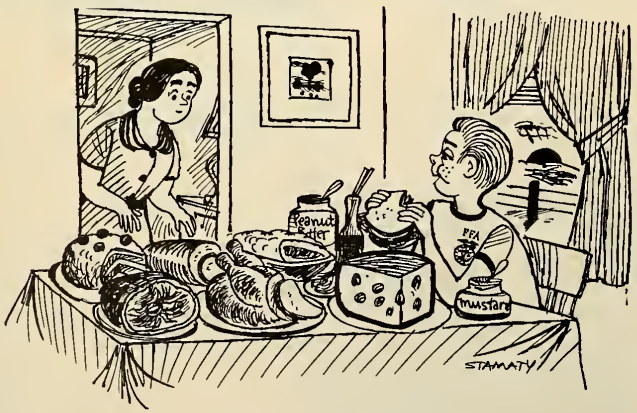
Sighed one weary wage-earner to another: *"My wife and I have an A & P syndrome—WEO everybody."*

Mary Dvorak
Belle Plaine, Minnesota

A doctor is a person who suffers from good health!

Phil Pulley
Parowan, Utah

Charlie, the Greenhand



"Up half the night writing an energy crisis report—and now a personal energy crisis."

A young policeman runs into a bank to find the bank teller tied up.

Policeman: *"Were you robbed?"*

Bank Teller: *"No, I'm spinning a giant cocoon!"*

Denise Wilson
Raphine, Virginia

How about the psychiatrist who treated a patient for three years because the fellow claimed he was always on the outside looking in—and then discovered that the fellow was a window washer.

Cindy Egner
Paducah, Kentucky

Gossip: *"Heard about the sidewalk?"*

Friend: *"No, what about it?"*

Gossip: *"It's all over town."*

Tim Springer
Athens. Alabama

Ed: *"How do you drive a baby buggy?"*

Edna: *"Tickle his feet."*

Sam Ward
Port Washington, Ohio

Jan: *"What did the grape say when the elephant sat on him?"*

Jane: *"I don't know, what?"*

Jan: *"Nothing, he just let out a wine."*

Ranae Rickels
Martelle, Iowa

The new employee limped up to the foreman at the end of a long day of back-breaking work. *"Boss, are you sure you got my name right?"* he asked.

"It's right here—you're Joe Simpson, aren't you?" the foreman replied.

"Yeah, that's it," moaned the fellow. *"I was just checking—I thought maybe you had me down as Samson."*

Robert Douglas
Zephyrhills, Florida

Bright: *"What insect can exist on very little food?"*

Brighter: *"A moth. He eats holes."*

Lori Mayer
Colton, Washington

Jim: *"Did you hear about the boy that went to the devil?"*

Chuck: *"No."*

Jim: *"He got kicked out for selling ice water."*

Glen Chapple
Griffithville, Arkansas

Joe: *"Guess what happened to Tom?"*

Mom: *"What?"*

Joe: *"He fell in mud up to his ankles."*

Mom: *"What's so bad about that?"*

Joe: *"He fell in head first."*

Keith A. Miller
Belding, Michigan

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